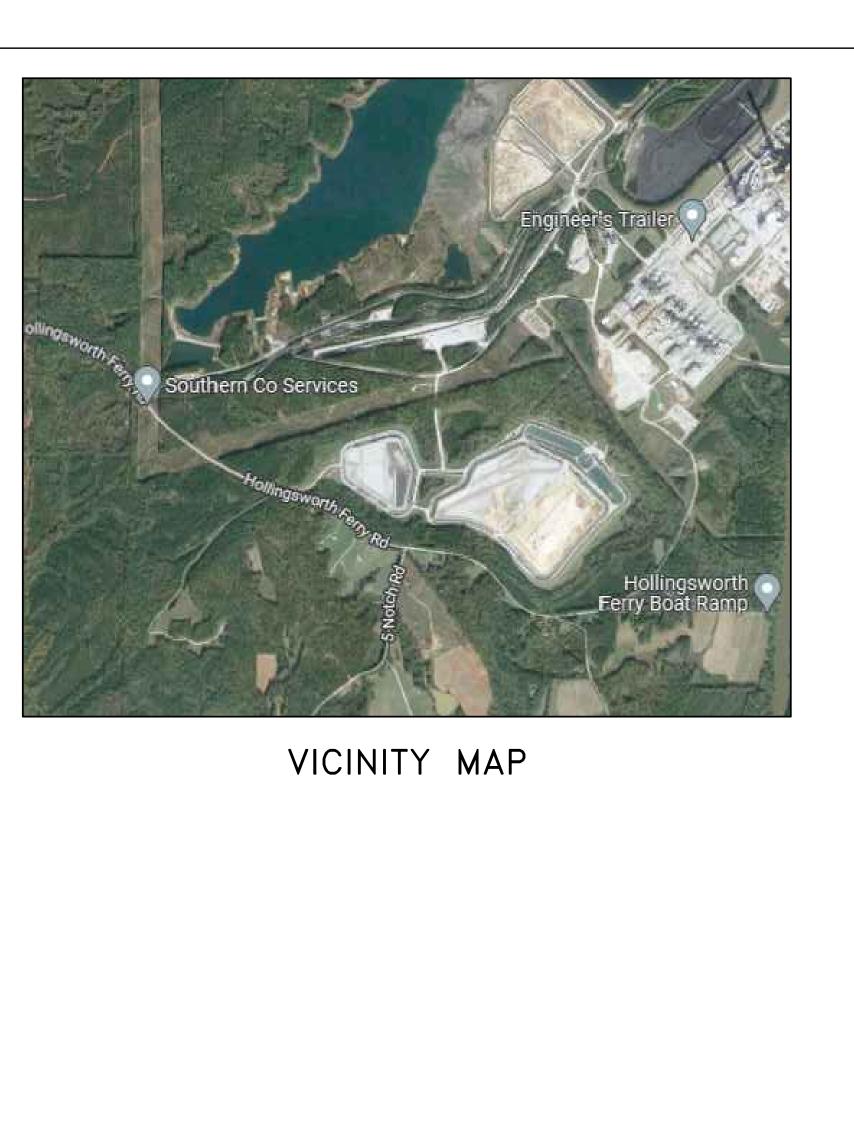
APPENDIX B

Topographic Survey of Existing Site Conditions



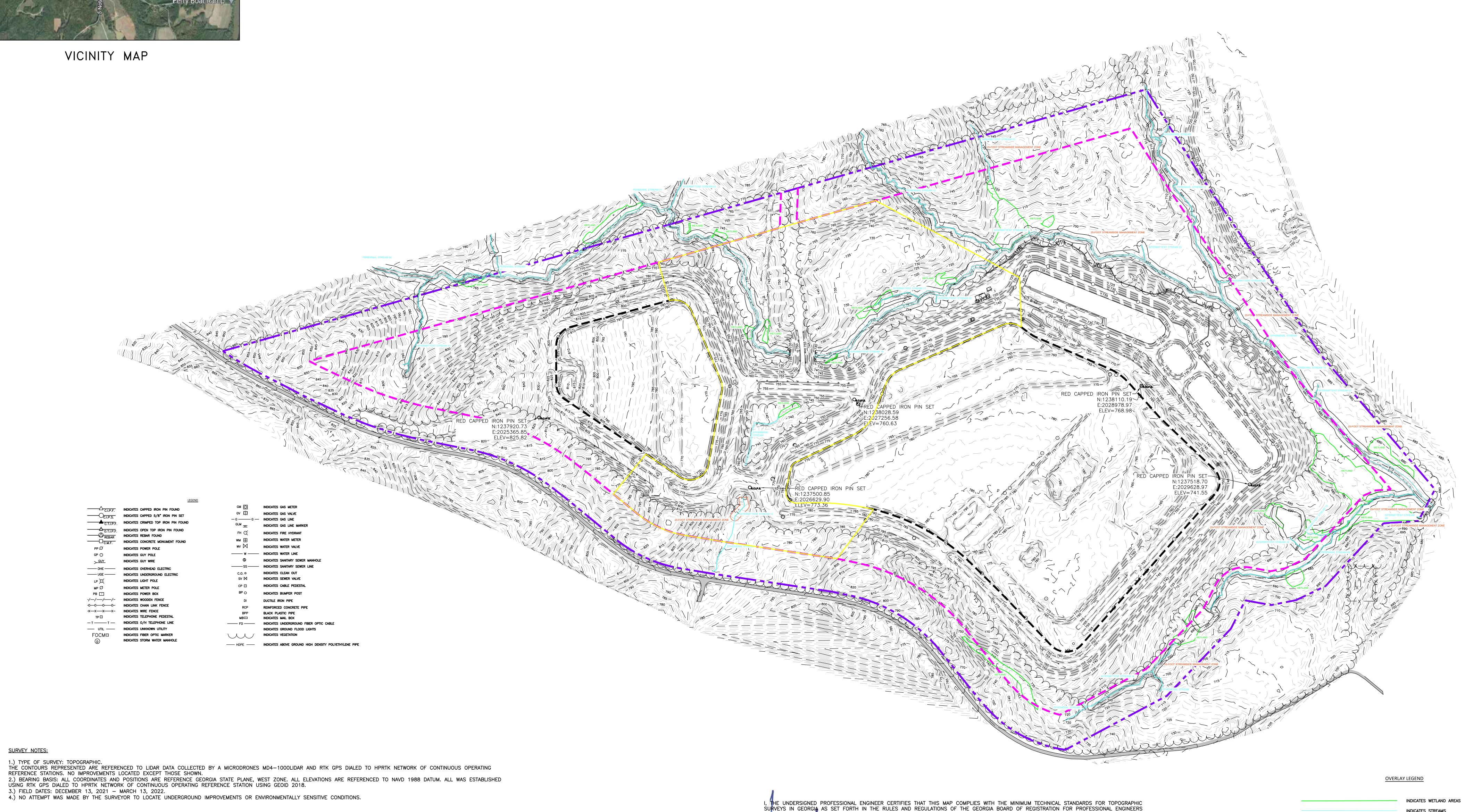
SURVEY NOTES:

GENERAL NOTE:

1. PERMITTING SITE BOUNDARY, 200 FT SITE BUFFER, PROPOSED LIMIT OF WASTE, AND EXISTING LIMIT OF WASTE WAS PROVIDED BY HODGES, HARBIN, NEWBERRY & TRIBBLE, INC BY WAY OF GEOSYNTEC CONSULTANTS, INC.

3. TOPOGRAPHIC SURVEY SHOWN HEREON IS FROM A DRAWING DONE BY THOMPSON ENGINEERING ON MARCH 13TH OF 2022 AND MAY NOT REFLECT THE CURRENT SITE CONDITIONS.

2. WETLAND, STREAM, AND DRAINAGE AREAS WAS PROVIDED BY ECOLOGICAL SOLUTIONS, INC BY WAY OF GEOSYNTEC CONSULTANTS, INC.



AND LAND SURVEYORS.

MATTHEW C. ROGERS, P.E.

GEORGIA PE# 46641 THOMPSON ENGINEERING

THIS DRAWING REPRESENTS DESIGNS PREPARED BY THOMPSON ENGINEERING FOR SPECIFIC USE ON THIS PROJECT AND IS NOT TO BE COPIED, REPRODUCED, OR ALTERED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE THOMPSON ENGINEERING REPRESENTATIVE AUTHORIZED TO APPROVE THIS USE. UNAUTHORIZED USE IS SUBJECT TO LEGAL ACTION UNDER STATE AND FEDERAL LAW.

06/01/2023 JBB UPDATED BOUNDARY LINES 06/06/2023 JBB ADDRESSING COMMENTS REVISION NO. DESCRIPTION ADDRESSING COMMENTS 06/09/2023 JBB

GEOSYNTEC LANDFILL TOPO W/OVERLAYS 1371 LIBERTY CHURCH RD, CARROLLTON, GA 30116 TOPOGRAPHIC SURVEY 2970 COTTAGE HILL RD., STE. 190 MOBILE, ALABAMA 36606 SCALE: 4/14/2023 22-1102-0003 WANSLEY TOPO WITH OVERLAYS 2023.DWG

INDICATES STREAMS

------ INDICATES EXISTING LIMITS OF WASTE

INDICATES 25' STREAM MANAGEMENT ZONE

INDICATES APPROXIMATE LIMITS OF PROPOSED CELL 4 DEVELOPMENT

INDICATES PERMITTED SITE BOUNDARY

INDICATES 200 FT SITE BUFFER

APPENDIX C

Ecological Solutions Survey



630 Colonial Park Drive Suite 200 Roswell, Georgia 30075 P 770.998.7848 • F 770.998.5606 www.ecologicalsolutions.net

E-MAIL MEMORANDUM

Date: May 25, 2022

To: Paul Jones, Georgia Power Company

From: Sean Eagan, Ecological Solutions, Inc.

Re: Plant Wansley Landfill Area Figures Initial Findings Memo

Ecological Solutions staff have conducted multiple ecology field surveys within various area at Plant Wansley. Field surveys were conducted to assess the presence and location of jurisdictional wetlands/waters regulated by the U.S. Army Corps of Engineers (USACE), State Waters potentially requiring a buffer, and the potential presence of protected species. As requested, Ecological Solutions prepared a brief findings summary to identify jurisdictional features, State Waters requiring a buffer, structures within or near wetlands and/or state buffers, and other potential issues associated with the project.

At the request of Georgia Power Company Staff (GPC), data was combined from multiple previous field survey data sets. The previous surveys include the October 2018, February 2021, and March 2021 field studies. When combined the total survey area totals approximately 1,225 acres. The focus of this findings memorandum is field efforts conducted in February 2021, and March 2022, which focused on areas adjacent to the existing gypsum landfill at Plant Wansley. This portion of the survey area is bounded by an existing transmission line easement to the north and east and Hollingsworth Ferry Road to the west, south and southeast.

Jurisdictional Features

Streams:

A total of twenty-six jurisdictional stream features were identified during the field survey and include the following:

- Seven ephemeral streams (Ephemeral Stream 05, 08, 11, 13, 15, 19, 20),
- Fourteen intermittent streams (Intermittent Stream 10, 12, 14, 16, 18, 19, 20, 21, 22-27),
- Five perennial streams (Perennial Stream 09-13).

Paul Jones May 25, 2022 Page 2 of 4

Wetlands:

A total of eighteen wetland systems (Wetland 05, 07, 09, 11, 13-22, and 24-27) were identified within the survey area. The majority of the wetlands consist of forested and/or scrub-shrub systems; however, some emergent systems were identified within the survey area. The emergent features were limited to open water edges.

Open Waters:

Two jurisdictional open waters (Open Water 05 - 06) were identified within the survey area.

Non-Jurisdictional Features

Nine non-jurisdictional drainage features were identified during the field survey. These include Drainage Features 14, 18, 20, 23, 32, 35, 37-39. These features lack required indicators of jurisdictional waters (streams) including an ordinary high-water mark (OHWM) or bed and banks. These features are likely remnant erosional scars and do not exhibit indicators of ground-water contribution or an OHWM. Given the absence of indicators such as an OHWM or bed and banks and their drainage association within the ash pond watershed, these features were determined to be non-jurisdictional.

State Waters Requiring a Buffer

Twenty-one State Waters requiring a buffer were identified within the survey area, and include all intermittent streams, perennial streams, and open waters.

Protected Species

Federal:

An EDGES (Effects Determination Guidance for Endangered and Threatened Species) was conducted for this specific area. A review of the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) indicates that the federally listed candidate species monarch butterfly (*Danaus plexippus*) could potentially occur in the project vicinity.

The survey area is predominantly forested and does not provide potential foraging habitat for this species; however, the adjacent, maintained transmission lines do provide habitat for this species.

State:

A review of the Georgia Natural, Archeological, and Historic Resources GIS online database indicates that the state threatened bald eagle (*Haliaeetus leucocephalus*) and state threatened bay star-vine (*Schisandra glabra*) have been observed within a three-mile radius of the survey area. No federal listed species were documented as occurring within a 3-mile radius of the survey area.

Paul Jones May 25, 2022 Page 3 of 4

Bald eagle nesting activity is concentrated mostly along major rivers, wetlands, and reservoirs in the southern and central parts of the state. The nest is usually in a large, open-topped pine near open water, often on high ground if available. No nests or bald eagles were observed during the field survey. Mature trees within the survey area are unlikely to serve as roost trees as they are not adjacent to any large open waters or rivers. The Chattahoochee River (approximately 0.3-mile east of the survey area) and an ash pond at Plant Wansley (approximately 0.4-mile north of the survey area) are the nearest large waterways. A bald eagle nest was historically known from the ash pond area but was abandoned approximately 10 years ago with no nesting activity occurring in the area since.

Bay star-vine habitat is mesic woods with understory trees, usually in bottomlands or in the bluffs along creeks and rivers generally on rich sandy-silt-loams. According to the United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS) soil survey, soils near bottomland streams have either fine-sandy loam or sandy-clay loam. Potential habitat for this state listed species is present within the survey area; however, no specimens were recorded during the survey, and it is not anticipated that project activities will impact this species. It should be noted that ecology surveys were conducted within much of the survey area in association with permitting for the gypsum landfill and no bay star-vine specimens were observed during those surveys.

The survey area also provides habitat for two state-listed aquatic species, blue stripe shiner (*Cyprinella callitaenia*) and highscale shiner (*Notropis hypsilepis*), known from Carroll and Heard counties. Habitat for the state-listed aquatic species is located within the larger streams identified in the survey area however no known occurrence has been recorded within a three-mile area of the surveyed area. No aquatic surveys were conducted in association with the field survey to determine the presence or absence of these species. It is not anticipated project implementation will adversely affect any listed aquatic species.

Superfund Sites

No known underground storage tanks or superfund sites are proximal to the survey area.

Protected Lands

The project corridor is not located within 2,000 feet of a National Wildlife Refuge, National Park Service, National Estuarine Research Reserve, or State Park.

The Bundt Tract Mitigation Bank, which is owned by Georgia Power, is within 2,000 feet of the southern limit of the survey area.

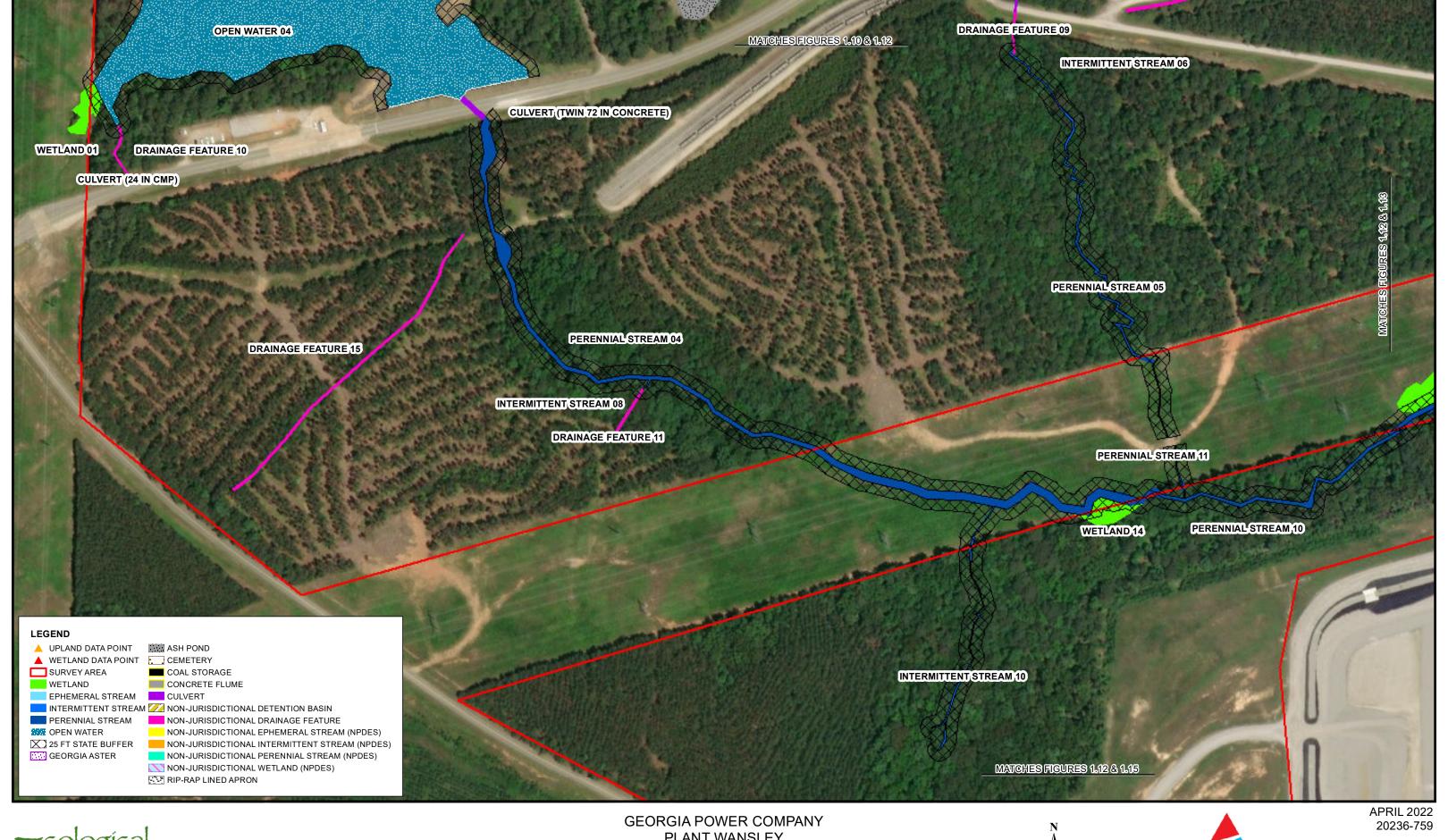
No Section 10 Waters of the US were located within the survey area.

No trout waters were located within or near the survey area.

Paul Jones May 25, 2022 Page 4 of 4

Other

No other ecological issues were identified by the field team that could potentially hinder project implementation.

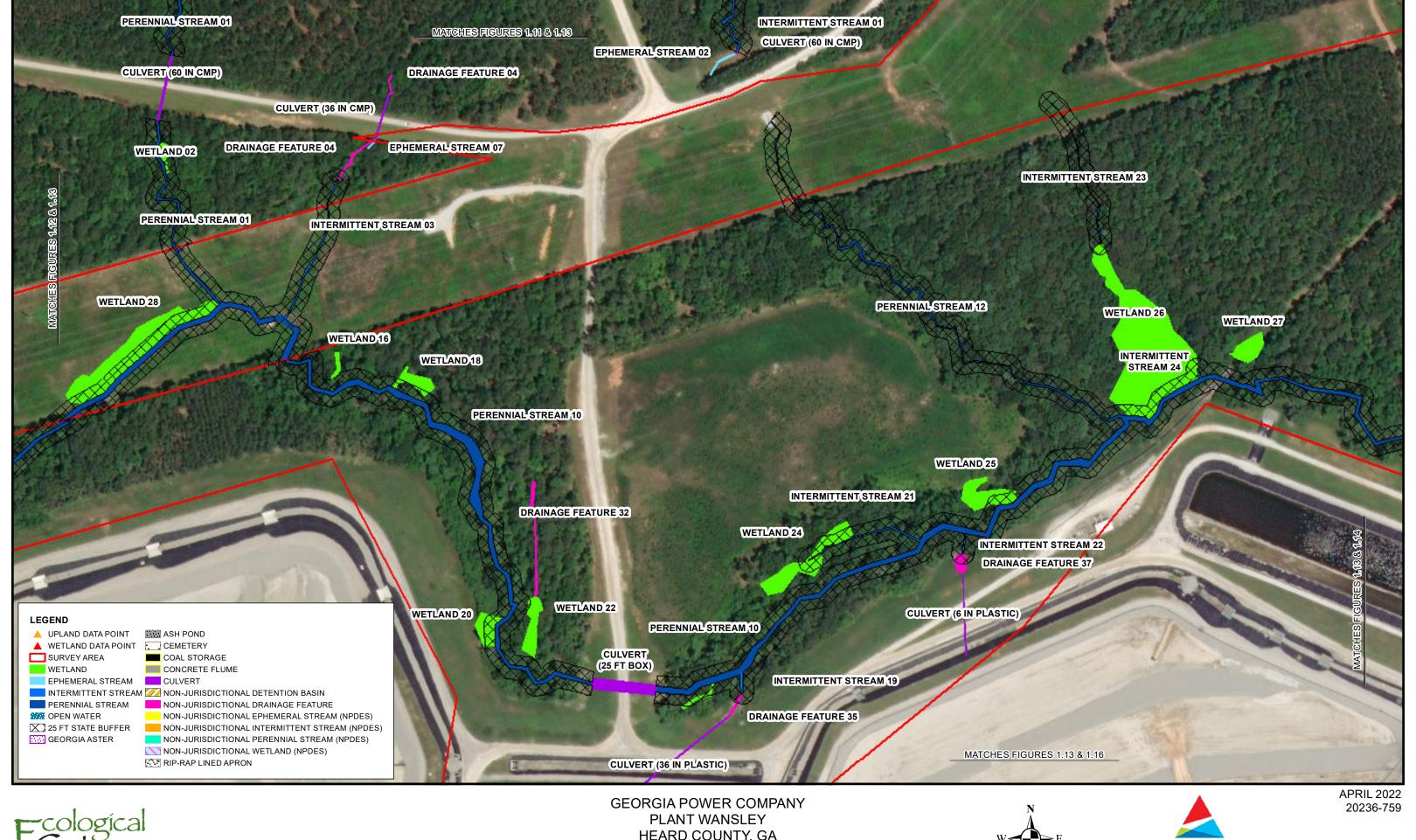




PLANT WANSLEY HEARD COUNTY, GA









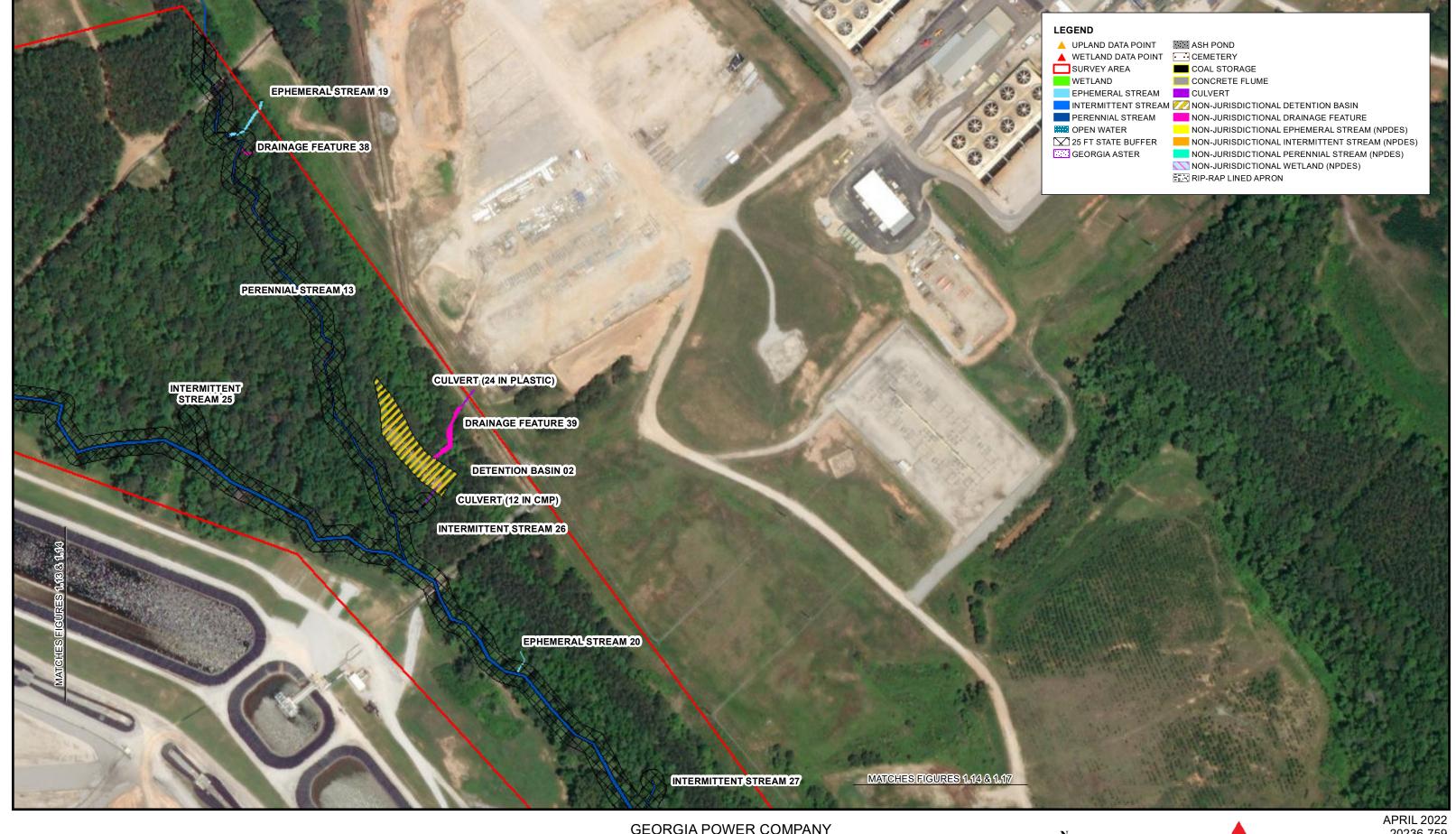
HEARD COUNTY, GA

ENVIRONMENTAL SURVEY FINDINGS





FIGURE 1.13





GEORGIA POWER COMPANY PLANT WANSLEY HEARD COUNTY, GA





20236-759





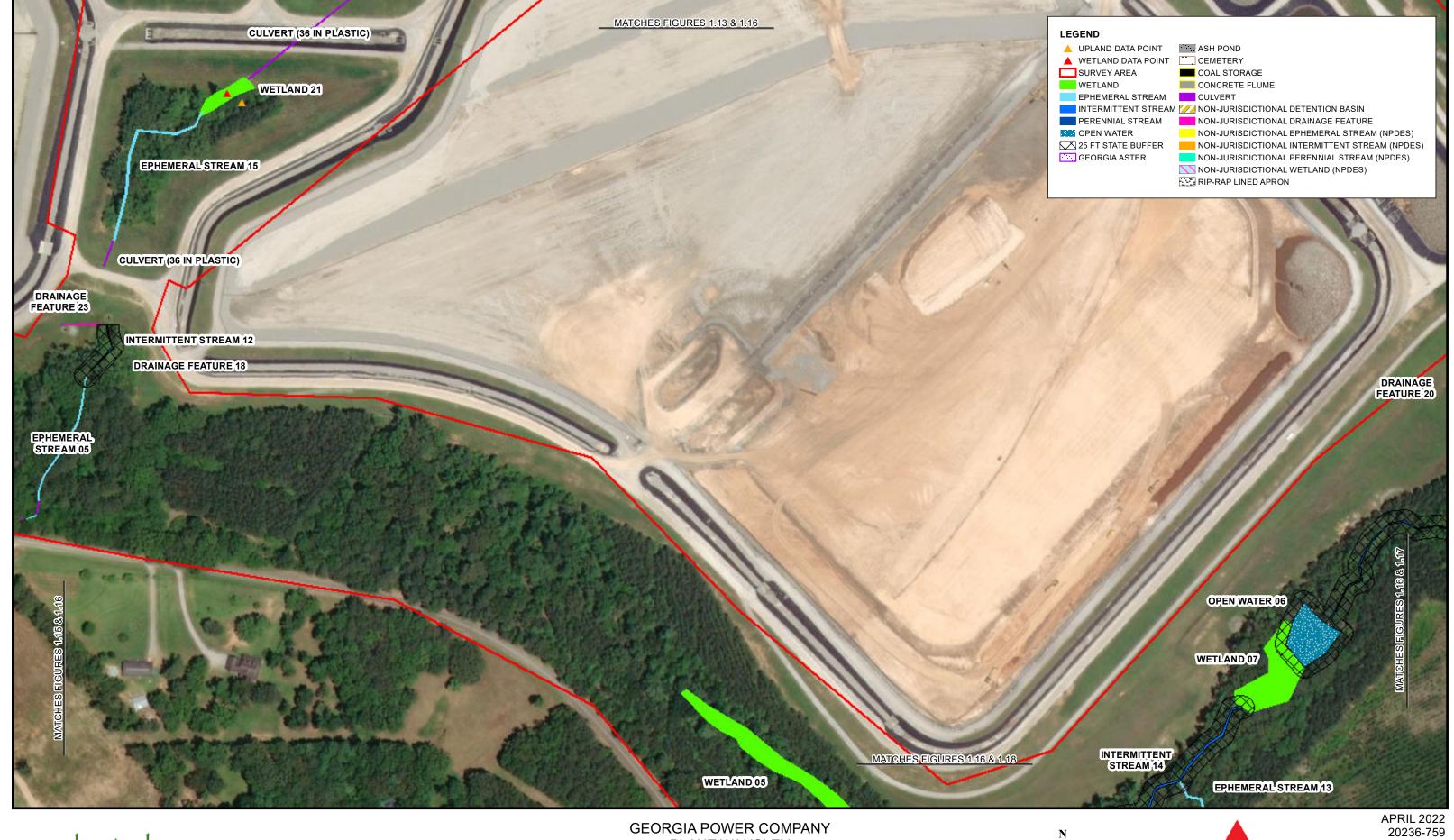
0 125 250 500 Feet GEORGIA POWER COMPANY PLANT WANSLEY HEARD COUNTY, GA

ENVIRONMENTAL SURVEY FINDINGS





FIGURE 1.15

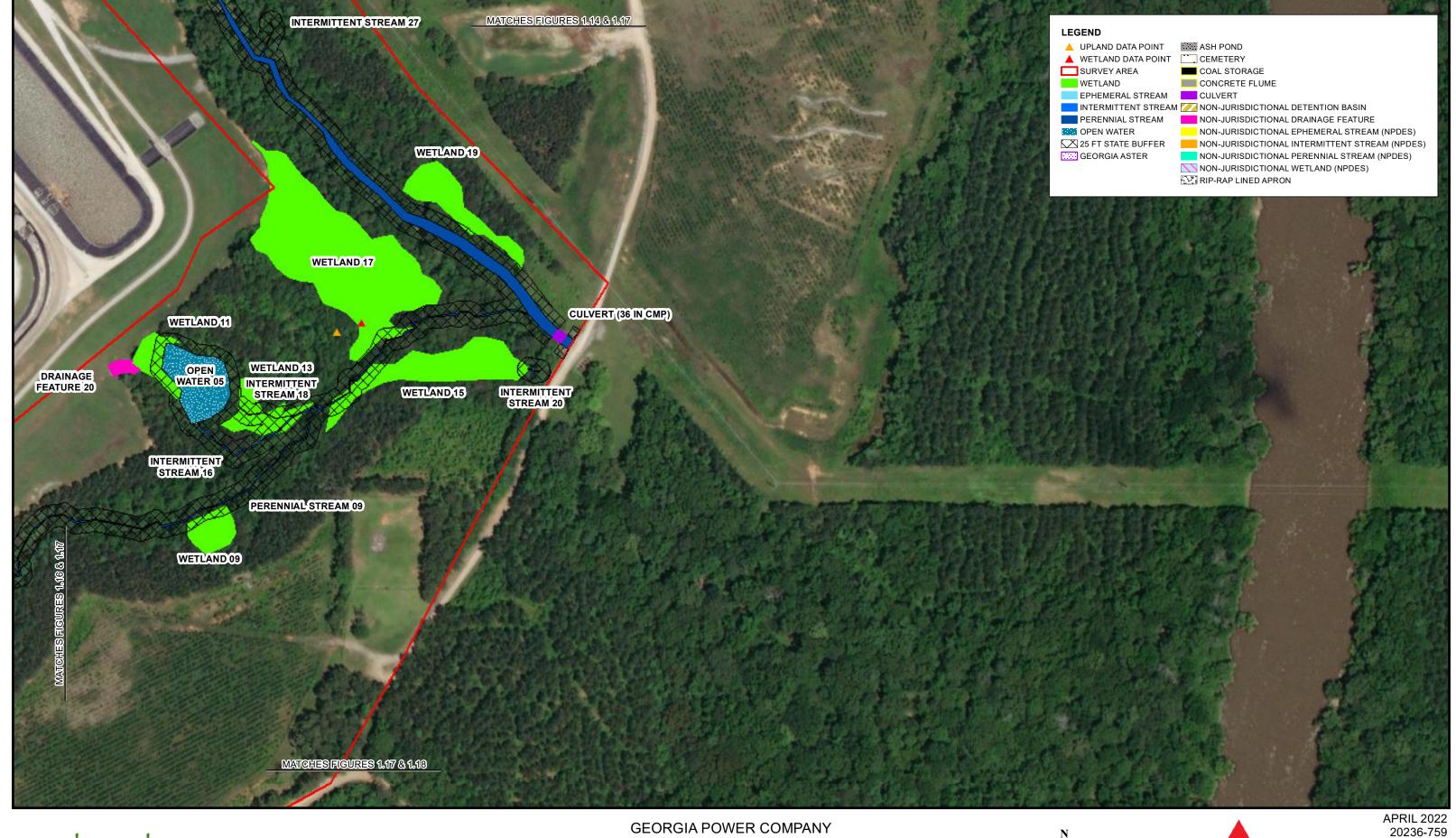




PLANT WANSLEY HEARD COUNTY, GA

ENVIRONMENTAL SURVEY FINDINGS



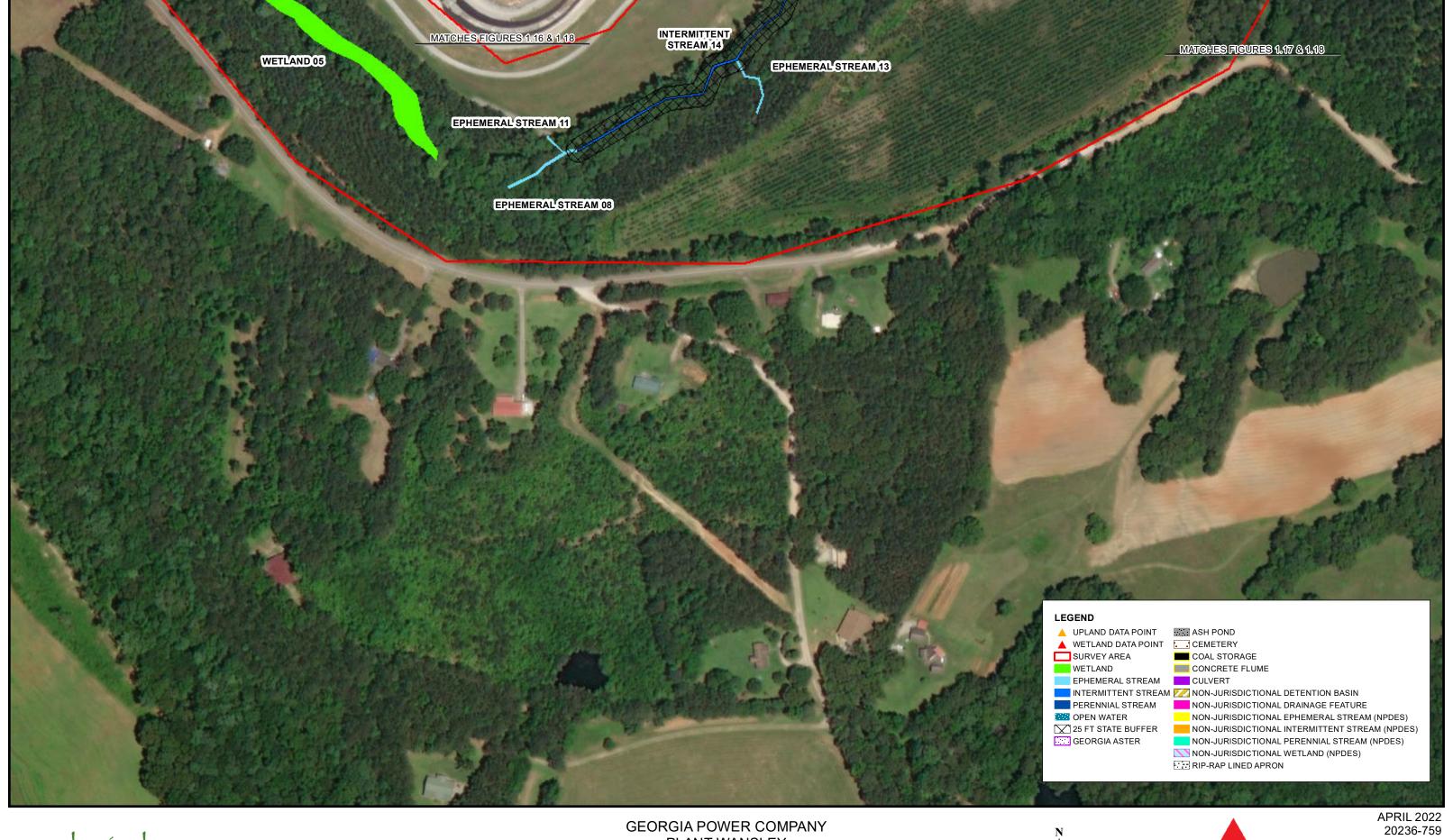




PLANT WANSLEY HEARD COUNTY, GA









125 250 500 Feet GEORGIA POWER COMPANY
PLANT WANSLEY
HEARD COUNTY, GA

ENVIRONMENTAL SURVEY FINDINGS





APPENDIX D

Zoning Letter

Chairman

FELICIA ADAMS

HEARD COUNTY COMMISSION P.O. Box 40

201 Park Avenue, Room 200 Franklin, Georgia 30217

Finance Director

HOPE COLE

COUNTY CLERK

MICHAEL HILL

COUNTY ATTORNEY

Phone (706) 675-3821

Fax (706) 675-2493

BOARD OF COMMISSIONERS

LARRY F. HOOKS
DISTRICT 1
JAMES PERRY
DISTRICT 2
GWEN CALDWELL
DISTRICT 3
LARRY HAMMOND
DISTRICT 4
DAVID R. WALLS
DISTRICT 5

September 19, 2022

Mr. Chuck Mueller Land Protection Branch Chief Georgia Environmental Protection Division 2 Martin Luther King Jr. Drive, SE East Floyd Tower, Suite 1456 Atlanta, GA. 30334-9000

Re: Georgia Power, Plant Wansley CCR Landfill - Proposed Expansion

Dear Mr. Mueller,

The proposed expansion of the Georgia Power Plant Wansley CCR Landfill, located at Plant Wansley in Heard County Georgia complies with local zoning and land use ordinances.

Sincerely,

Lee Boone, Chairman

Lee Boone

Heard County Board of Commissioners

cc: J. Anthony Averett

APPENDIX E

Drillers Bonds

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

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

each individually if there he more than one named, its true and lawful attorney-in-fact to make.

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 <u>Birmingham</u> state of <u>AL</u> each individually if there be more than one named, its true and lawful altorney-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	
	to these presents and shall be as shalling upon the Companion to a new years and significantly significant and shall be as shalling upon the Companion to a new years and significant and significant and shall be as shall be	
	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 .	
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>	County of MONTGOMERY **	₹S
ă	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	000
S	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.	SI.
-	10 du, execute the dregoing instrument of the purposes refer to inclinate by signing of borish of all completes and the day and your first phone written	rne
נַנ	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.	물론
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merest	Teresa Pastella, Notary Public Mentopomery County	824 824
ē	OF My commission expires March 28, 2025 By: WWW Idamura	35
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ĕ	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:	Secon
E	ARTICLE IV - OFFICERS: Section 12. Power of Attorney. Any officer or other efficient of the Comparation subhorized for that number in writing by the Chairman or the President, and subject to such limitation as the Chairman or the	or b
٥	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 surely	E a
	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 surely bonds, shall be valid and binding upon the Company with	
	Company, wherever appearing upon a certinet cuty or any power or automosphary in contraction was surely conductive and offers 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.	
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	Renée C. Trewellyn, Assistant Secretary	
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CONTINUATION

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, 2022

(MONTH-DAY-YEAR)

and ending on June 30, 2023

(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

Attorney-in-Fact

effrey M. Wilson, Attorney-in-Fact

McGriff Insurance Services, Inc.

Agent

2211 7th Avenue South, Birmingham, AL 35233

Address of Agent

(205) 252-9874

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

each individually if there he more than one named, its true and lawful attorney-in-fact to make.

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 <u>Birmingham</u> state of <u>AL</u> each individually if there be more than one named, its true and lawful altorney-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	
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	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 .	
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>	County of MONTGOMERY **	₹S
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S	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.	SI.
-	10 du, execute the dregoing instrument of the purposes refer to inclinate by signing of borish of all completes and the day and your first phone written	rne
נַנ	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.	물론
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merest	Teresa Pastella, Notary Public Mentopomery County	824 824
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ĕ	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:	Secon
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٥	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 surely	E a
	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 surely bonds, shall be valid and binding upon the Company with	
	Company, wherever appearing upon a certinet cuty or any power or automosphary in contraction was surely conductive and offers 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.	
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	Renée C. Trewellyn, Assistant Secretary	
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Bond Number	KO8418809
DOLLO MOUNDEL	

Performance Bond For Water Well Contractors And Drillers

Name of Water Well Contractor or Driller Michael C. Rice dba Boart Longyear Company
Know All Men By These Present. That we Michael C. Rice dba Boart Longyear Company 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/OO 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 or, in the case of a water well contractor, date of licensure and shall continue in effect until terminated by expiration, mutual agreement or cancellation upon 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 July 1, 2010 and unless sooner terminated, this bond shall terminate June 30, 2011. In Witness Thereof the Principal and Surety have caused these present to be duly signed and sealed, this 6th day of, July 20 10. Michael C. Rice dba Boart Longyear Company
PRINCIPAL, BY (L.S.)
TITLE:
GEORGIA REGISTERED AGENT N/A SEAL:

		ACKNO	WLEDGMENT B	BY SURETY
County	Missouri St. Charles	} s	ss.	
On thisappeared	Cynthia L.	day ofChoren Fire Insurance	***************************************	, <u>2010</u> , before me personally , known to me to be the Attorney-in-Fact o
				such corporation executed the same.
IN WITNE	SS WHEREOF, 1		my hand and a	flixed my official scal, at my office in the aforesaid

Power of Attorney

WESTCHESTER FIRE INSURANCE COMPANY

Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the State of New York, having its principal office in the City of Atlanta, Georgia 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"):

- 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.
- 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 altomey-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 in 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 bet 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.

FURTHER RESOLVED, that the Resolution of the Board of Directors of the Company adopted at the meeting held on November 8, 1999 relating to the authorization of certain persons to execute, for and an behalf of the Company, Written Commitments and appointments and delegations, in hereby rescinded.

Does hereby nominate, constitute and appoint Cynthia L Choren, Debra C Schneider, Heldi A Nothelsen, JoAnn R Frank, Karen L Roider, Pamela A Beelman, Sandra L Ham, all of the City of SAINT LOUIS, Missouri, 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 Twenty million dollars & zero cents (\$20,000,000.00) 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. Huney, Vice-President, has bereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 1 day of December 2009.

WESTCHESTER FIRE INSURANCE COMPANY



Stenben M. Haney Vice President

COMMONWEALTH OF PENNSYLVANIA COUNTY OF PHILADELPHIA SS.

On this I day of December, AD. 2009 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.



COMMONWEALTH OF PENNISYLVANIA
HOTARIAL SEAL
KAREN E. DRANDT, Nothy Public
City of Philosophia, Phila. County
My Commission Expires Suprember 26, 2010

Krise Ebrasidt Nederiy Palille

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 6th day of July, 2010.



William L. Kully
William L. Keliy, Assistant Ferredity

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER December 01, 2011.

Bond Number 30108535

Performance Bond For Drillers

Name of Drifter 1 milip Pitts and Staff viville	
Know All Men By These Presents	-
That we Phillip Pitts and Stan White	and
Successor or Successors in office, as Obligee, in the full	rety), are held and firmly bound unto the Director of the ural Resources, State of Georgia (Director) and his or her sum of FIFTEEN THOUSAND DOLLARS (\$15,000.00) de, the Principal and Surety bind ourselves our heirs
WHEREAS, the Water Well Standards Act of 1985 (O.C as that term is defined by the Act, have a performance t and WHEREAS the above bound Principal is subject to the standard of the standard o	C.G.A. §§ 12-5-120 et seq.) (the Act) requires that a Driller, bond with the Director to ensure compliance with the Act; he terms and provisions of said Act.
and hereafter amended, and the rules and regulations pro- correction of any violation of such procedures and standa	are such that if the above bound Principal shall fully and the the procedures and standards set forth in the Act as now imulgated pursuant thereto, including but not limited to the ards upon discovery, irrespective of whether such discovery bond, then this obligation shall be void; otherwise it shall
And Surety, for value received, agrees that no amendmen laws, rules or regulations shall in anyway discharge its ob- such amendment, adoption or modification.	nt to existing laws, rules or regulations, or adoption of new oligation on this bond, and does hereby waive notice of any
2023, unless sooner terminated by mutual agreement of P be made unless sixty (60) days' prior written notice is m	, 2021 and shall continue in effect until June 30, rincipal and Surety, provided that no such termination may hade to the Director. In the event of such termination, the er this bond which arose prior to such termination shall
IN WITNESS THEREOF the Principal and Surety have 26th day of April, 2021	caused these present to be duly signed and sealed, this the
Principal Thompson Engineering, Inc.	Surety Western Surety Company Votth
Print name: Title:	Print name: Kathleen Scarborough Title: Attorney-in-Fact
Scal:	Scal:

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Lisa R Butler, Joseph Russell Beattie, Lessie Ryau Anderson, Debbie Lynn Dunaway, Dewey B Mason, Individually, of Gulfport, MS
Jim E Brashier, Troy P Wagener, Kathleen Scarborough, Susan Skrmetta, Patrick Thomas Mason, James E Brashier, Individually, of Biloxi,
MS
Ross Bell, Richard Teb Jones, Mary J Norval, David Robin Fortenberry, Kim Barhum, Individually, of Hattiesburg, MS
Sharon Tuten, Chris Boone, Charlotte Ramsey, Individually, of Jackson, MS
John Nance, Individually, of Topelo, MS
Andrew P Underwood, Individually, of Mobile, AL

its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and continued.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 10th day of February, 2021.



WESTERN SURETY COMPANY

Paul T. Bruffat, Vice President

State of South Dakota County of Minnehaha

} *

On this 10th day of February, 2021, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the sent affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commi	ssion	exp	ires
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June 23, 2021



J. Mohr, Notary Public

CERTIFICATE

I. L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 26th day of April 2021.



WESTERN SURETY COMPANY

J. Relson, Assistant Secretar

Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

APPENDIX F

Boring Logs

	HERN COMP	ANY	LING L		0.0	24	Hole No.		100	
		Plant Wansley	STORY STATE OF THE			54.2		The state of the s	451	7.7
		Gypsum Storage Facility			12381					
		BEARING	CONTR	ACTOR	SCS	28	DRILL NO.	СМЕ	E 550	
		D HSA/HQ Core NO. SAMPI	LES	. 8	NO. U	J.D. SAM	PLES	0		725
CASING		LENGTH	COI	RE SIZE	HQ	тот	AL % REC.	70	8%	
111500000000000000000000000000000000000		PTH 31.2' ELEV	TIME AFTER	R COMP.	24 hrs	D	ATE TAKEN		14	
	ROUT	QUANTITY	м	ıx	DR	ILLING S	TART DATE	10/12	2/2006	
DRILLE	R	M. Hughes RECORDER Filipovich/Grissom APP					OMP. DATE		7/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Commen	ts	% Rec	RQE
						- 1	x =		Ť.	
0	847.70	Topsoil to 0.5' Red/brown sandy CLAY (CL) with abundant			II	11	8	<i>\$</i> >		
1	*	mica flecks, dry	1	0-1.5	4-4-8	12	Bulk sample t at 1.0 - 2.0 fe	and the same of		- 22
2		2.4%					PL-26, PI-21	1. 1	- E 1	120
3		# #				0.5	gravel - 1.4% sand - 32.1%			
70.7					28		silt - 25.3% clay - 41.2%			
4		Yellow brown silty sand to sandy SILT (ML) with						A 4 E		
5		abundant mica flecks, dry	2	4-5.5	6-10-11	21	Bulk sample tat 3.0 to 4.0 f			
6	1						nonplastic			
7		$\frac{1}{R} = \frac{1}{2}$					gravel - 0.5% sand - 49.4%			
	J						silt - 35.6% clay - 14.5%	Sa d		
8		g f σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ	e 10 10				Glay - 14.5 /6			
9		SAA, reddish brown & yellow	-	1			30	2521111		
10		or a ground some a young	3	9-10.5	3-4-5	9	7	- 1		
11	3		-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	W. II		11 5			
								i zajia i	127	ans.
12	-						1			
13									7	
14								- 4		
15	31	Orange brown, fairly dry, slightly sandy SILT with trace of black minerals	4	14-15.5	2-2-4	6		(t) = 390)	40	
Not	a									
16	e e canto						1 10	-//		
17					8					
18	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					- 22	J4.	***	
19	1960	learners, Senson							1-15	
		Brown & tan, moist, sandy SILT with abundant	5	19-20.5	2-4-6	10	1 ,41	po iš		
20		mica (relic bedding)	5	19-20.5	2-4-0	10		20 10		
21					6.		e ²⁰ #b		1	100
22		Factor and the state of the sta				1		6		
23		*				1		, , , ,	100	
14,1		E language of the control of the con		10		1			F -	
24 Form GS	2004 7.00	2004		L						

SOUTHERN COMPANY Energy to Serve Your World

Form GS9901 7-26-2004

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-1

Sheet 2 of 2

Plant Wansley 54.2 TOTAL DEPTH SURF.ELEV. 8ard Penetration Test Depth Material Description, Classification and Remarks From To N Comments RQD % Rec Orange brown to brown, moist, slightly silty fine SAND (ML) with some mica 6 24-25.5 7 3-3-4 25 26 27 28 29 SAA, less orange 7 29-30.5 30 2-2-4 6 31 32 33 34 35 Dark burgundy to brown, moist, silty Saprolite 8 34-35.5 43-43-50 93 36 37 38 Auger refusal @ 38.9' 39 Begin coring @ 39.2' 40 Gray to white, weathered GNEISS abundant pyrite growths and iron staining along fractures, 39.2-2.3/5.0 0 calcite laminations, qtz veins 46 42 44.2 43 44 45 46 44.2-4.7/5.0 100 47 94 49.2 48 49 50 51 4.8/5.0 49.2-50 52 96 54.2 53 54 BOH @ 54.2° 55

	HERN COMP	ANY	LLING L			15%	Hole No.	And the second	ANTI-CONTRACTOR	
-		Plant Wansley			HOLE DEPTH	45.7	SURF	ELEV.	834.	2
		Gypsum Storage Facility								
	0.	BEARING								
	G METHOD	210.1.0.0								
CASING	SIZE	LENGTH								
WATER	TABLE DE	MATERIAL IN THE PROPERTY OF TH								ii 6
TYPE GI	ROUT	QUANTITY					114		4	
DRILLER	R	S. Milan RECORDER Bearce/Hartsfield A					MP. DATE			
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Comments		% Rec	RQ
0	834.20			5				. 11	W 3	25
-	004.20	16				.00	Bulk sample tak at 1.0-2.5 feet	ken	7	5
1		Reddish brown and brown very silty fine SAND			(a)		LL-47 PI-21			21
2			1	1-2.5	4-5-7		gravel - 1.4% sand - 32.1%	de.	36	
3					- 1	1	silt - 25.3%	984		
4							clay - 41.2% Bulk sample tal	ken		
		Dala aronno allertina CANID hard da					3.0-4.0 feet non-plastic	 H		03
5		Pale orange silty fine SAND, hard, dry	2	4.5-6	5-7-8	15	gravel - 0.5%	1		
6							sand - 49.4% silt - 35.6%	1	a 1	53
7	4-4				2		clay - 14.5%	4		
8	2					8		500	0 1 4	
					- 1			14.55	å.	
9			87							
10		SAA	3	9.5-11	6-8-13	21				
11	TY.									
12									T	
								, P	e 1 u	
13					9					
14	-					0				
15		SAA		145 10	5.57	12				
16			4	14.5-16	5-5-7	12		4		
		3 3 3 3					30.0			
17				== 2			6.3		- 1	
18			- 3							
19					2					
20		Tan silty fine SAND, relic bedding		Gordina vonder	hat these protesses		0		i i	
	===Y		5	19.5-21	5-10-50/4		545,47		Ь,	
21			14				1011			
22		Start coring at 21.2' Biotite GNEISS, pink & black with phenoblasts		21.2-	open fracture		4.0/4.5 lost water @		is pa	
23		of feldspar		25.7			never regai	ined	88	9
24		*			1.0	1	circulatio	n	100	1

GEOLOGICAL SERVICES

Hole No. Sheet 2 of 2

GS-2

स्थान- इहान	SEFFE TOL	GEOLOGICA Plant Wansley	Igor % cs.4		TOTAL DEPTH	45.7	Sheet 2 of 2 SURF.ELEV.	130733	
SITE	State of the late	Plant wansley	Sample	Stan	dard Penetration Test	40.7	SONF.ELEV.	1	
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments	% Rec	RQD
25			10 m	1 - W	Type Book.				V.
26		SAA	3.98		7				
WY E			24.17		A STATE OF THE STA	E CAN PA	1000 300	, Ag	1
27	W		din anti-a-a			25-	2	10 1	
28	A street		2	25.7- 30.7	H na a	New seal	4.9/5.0	98	69
29	pro Kal	The state of the s	100 May 100 Ma 100 May 100 May 100 May 100 May	Lange to the	must be entry appear	186) 188 - 1			
30	diplos sem large	The state of the s	Garner 10	The Care	F. Sec. At Art.	9-5 . I	ara f sal	ji ji ji	
1 6	100	0.44			Description of the		200	4	
31	Agreed .	SAA	1,2				6		
32	-		1	Alfley 4 mil	5 Well 18				
33				30.7-			3.8/5.0	76	7
34	32.	The second secon		35.7				- 1	
1	witte			in the		222	w.		
35			*						
36	- 1	SAA Smokey quartz vein	100	II P	Section 1				١.
37		Biotite GNEISS		· Little					
38			1	35.7-	and South		1.5/5.0	30	
39	ū.,			40.7	T.,				-
1	4.		1		a 12 _ 5		Sta.	10.0	
40	<u> </u>				650 4		E		1
41		Biotite GNEISS	a (20 2)	5 5			w A		
12			18	6,		1 1	2 = 3		
13			1 1	40.7-			4.8/5.0	96	1
44				45.7	1				
100	-								
45		BOH @ 45.7'	a Ey.E						
46				0, 04				1 NO	
47				Ja		1	30 A	N.	
48	E.			15 S	1 4				
49				100			3.00 E. I	1 1 1	
50	100							1 10 10	
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51		The state of the s		1 2		0.0	.*	1	
52	1 - 44 16 8		1	= 5,			n		
53			-				gay a said		
54	AVE VE		, w.b.	Daniel (Kr.	FREE grades (Ling)	3		4 1 4	
55	the-		15 00				n =		
56	mer se	The state of the s		· · · · · · · · · · · · · · · · · · ·	And restriction of the second	- v-	New Park	1 1	

SOU"	COMP	0501 0010		Section 11			Hole No.			12
		Plant Wansley			HOLE DEPTH	50'				32
		Gypsum Storage Facility		433	100				All Carries	
		BEARING	CONTR	ACTOR	scs		ORILL NO.	CN	/E 550	
	NG METHO		S	- 11	NO.	U.D. SAMPI	LES		0	
CASING	SIZE	LENGTH					S4 020 11 10	1.53		
WATER	TABLE DE	PTH	ME AFTE	R COMP.	TOD	DAT	TE TAKEN	10/2	20/2006	
TYPE G	ROUT	QUANTITY	м	ıx	DR.	ILLING STA	ART DATE	10/2	23/2006	
DRILLE	R	M. Hughes RECORDER K. Hobbs APPRO	VED _		DR	ILLING CO	MP. DATE	10/2	23/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	dard Penetration Test Blows	N	Comments	9 942	% Rec	RQI
0	803.20	9 7						-	- 1	
		Reddish brown SILT, soft		0.4.5			8		7, 1	
1	-	, 14 m	1	0-1.5	2-2-2	4			9 10 1	
2	=======================================	* 1							V -1	
3				#8					9 10	
4		1 8 6 9 9 9							er i	١.
5		Reddish brown SILT, medium stiff	2	3.5-5	5-7-10	17			fla:	
5		neddish brown St. 1, medium stin								1 1
6									1.	
7						is				
8		1 9 1 V	1						Li.	
9		Red brown SILT, slightly damp, soft								
			3	8.5-10	2-2-3	5		ė		
10	1 N	2								8
11								-	P 11	
12		27 0 10 10 10 10 10 10 10 10 10 10 10 10 1							NC .	
13									Chargo	
14		SAA	\vdash		n 11.63					
	al	SAA	4	13.5-15	2-4-3	7				
15					6			i i		sc lit
16									및 및	
17				90						
18	9			D2 15		1 1			- 1	
		SAA/relic banding	3	3	11 TN				4	5
19		SANTERIC DETICING	5	18.5-20	2-2-4	6				
20									No.	\$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00
21	23		1					usefile 100	11/2/	
22									EX 14	
23				2				ne Pa		
	-				0.00					
24	9901 7-26-									

SOUTHERN AS COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-3

GEOLOGICAL SERVICES Sheet 2 of 2 50' SURF.ELEV. 803.2 **Plant Wansley** TOTAL DEPTH SITE ndard Penetration Test Sampl No. Comments Material Description, Classification and Remarks Blows N Depth Wet yellowish orange, sandy SILT, relic banding with dark staining, medium stiff 6 23.5-25 2-4-4 8 25 26 27 28 Clayey sandy SILT, 29 7 28.5-30 6 medium stiff, saturated 2-2-4 30 31 33 SAA, soft, medium stiff 34 33.5-35 2-2-3 5 35 36 37 38 SAA, medium stiff 10 38.5-40 2-4-6 40 41 42 43 Light brown, mika flakes, saturated, SILT, 44 10 43.5-45 (dropped) very soft 45 46 47 48 SAA, medium stiff 49 11 7 48.5-50 2-3-4 50 Boring terminated at 50' 51 53 54 55

	HERN COMP						Hole No. Sheet 1		
SITE	_	Plant Wansley			HOLE DEPTH	35.5	SURF.ELEV.	805	.9
Section 1		Gypsum Storage Facility						12.00	
		BEARING							
		HSA/HQ Coring NO. SAMPLES							- +
	SIZE	LENGTH						5%	
	TABLE DE								
TYPE GI	ROUT	QUANTITY							
		S. Milam RECORDER K. Hobbs APPRO							
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	lard Penetration Test Blows	N	Comments	% Rec	RQ
	805.90								
7.	805.90						L 0. 4		П
1		Reddish brown sandy SILT, medium stiff	\Box		5,092		19	(-) (d	
2	ē.		1	1-2.5	4-4-6	10		Jr 4	Ę.
3					ha in		UD tolor @	1	
4							UD taken @ 3.0-5.0 feet in	1 13	
5		Buff sandy SILT,Relic banding & feldspar crystals				3.8	offset hole	9	
5		stiff	2	4.5-6	5-7-11	18		100	
6			-					E*.	
7								1	
8						201		de la	
9	le l		-		χ				
		Buff sandy SILT, relic banding with dark oxidation					00.00		
10	-	stains, stiff	3	9.5-11	6-9-9	18	UD taken @	3.0	ļ is
11		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	-			10.0-12.0 feet in offset hole		II Ed
12		y a			F3		4		
13								NO 24 1	
								1	4
14								1-1	
15		SAA, saprolite, hard	4	14.5-16	3-7-50/4		1		40
16					9 %	1	3		
17								(
18		Begin Coring Gray/pink GNEISS with quartz, mica, feldspar banding					coarse-grained	100	2
5.1016.0		some large feldspar crysals, highly weathered,	1	17-21.7			granitic	85	7
19		red oxidation stains on large fractures					8		
20					× *				- 125
21					18		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(College)	
22	- III - 1000	SAA, highly fractured, heavy iron staining						N. J.	
23	54							100	5
20	 			21.7-25.5			2017		

SOUTHERN AS COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-4

Sheet 2 of 2

Plant Wansley TOTAL DEPTH 35.5 SURF.ELEV. 80: No. Depth % Rec Gray/pink GNEISS, banding of quartz, mica, 21.7-25.5 100 50 feldspar 26 27 74 25.5-SAA 94 28 30.5 29 30 31 30.5-36 33 SA, highly fractured, heavy iron staining 100 35.5 35 BOH @ 35.5° 36 37 38 39 40 41 42 43 45 47 48 49 50 51 52 53 54

	DANY	LLING L SICAL SEI				No. GS-5 Sheet 1 of 2
SITE			HL00 =4-	HOLE DEPTH	31.6'	SURF.ELEV. 773.1
OCATION	Gypsum Storage Facility	COORD	INATES N	12387	97.0	2026220.1
ANGLE	BEARING	CONTR	ACTOR	SCS	DRILL NO.	CME 550
DHILLING METH	TION I GOIC NO. DAW				J.D. GAINI ELG	1500
CASING SIZE	LENGTH	co	RE SIZE	HQ	TOTAL % REC.	100%
WATER TABLE	DEPTH					4
TYPE GROUT	QUANTITY					
DRILLER	M. Hughes RECORDER K. Hobbs/Bearce AF	PPROVED		dard Penetration Test		10/22/2006
Depth Elev.	Material Description, Classification and Remarks		From To	Blows		mments % Rec F
0 773.1						
. 1 "	SILT, buff., gravel interlayers	1	0-0.5	50/5	182	
2						
now I						1
3			2 1			* *I
4						n er sage state i F
5	Yellowish orange silty SAND	2	5-5.5	50/5		
6	Tellowish drange siny SAND		3-3.3	50/5		
7						
8				0.8		
- 1						
9	SAA	3	= "	38-50/1		earnaed .
10	Begin Coring	_		-	-	
11	Light gray, hard GNEISS with large feldspar crystals					
12	and banding of quartz, micas and feldspar.		40.444			
13	very fractured		10-14.4			100
14			78			P
15					8	
16			V 22			
17	SAA with Fe, Mn oxides on larger vertical fracture faces		14.4- 19.4			100
18			10.4	, AS		W I
19	l ga e e	*			5 5	
20	0	3			+	
1001						
21	SAA		19.4-			100
22			24.4			- 1
23				4 4		
				ì	1 1	3,100

SOUTHERN AS COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-5

GEOLOGICAL SERVICES Sheet 2 of 2 Energy to Serve Your World **Plant Wansley** 31.6 773 TOTAL DEPTH SURF.ELEV. Elev Material Description, Classification and Remarks Comments RQD N Depth From To % Rec 25 26 Gray/pink GNEISS with large feldspar crystals, banded 24.4-92 100 quartz, feldspar and mica, Fe/Mn oxides on all 29.4 fracture faces 28 29 30 29.4-100 SAA 100 31 31.6 BOH @ 31.6' 33 34 35 36 37 38 39 40 41 42 43 45 46 47 48 49 50 51 52 53 54

	COMP	DRILLI GEOLOGIC						o. Sheet 1		
		Plant Wansley				41.5				7 1
		Gypsum Storage Facility		CH 2		and the same		20-2 (00)	with the same	
-	200								1000	
		BEARING	CONTR	ACTOR . —	303		DHILL NO	0		
	G METHOI		3	9	NO. U	J.D. SAMP	LES	st a service of the s		
CASING		LENGTH								
	TABLE DE	1000000						10.09		
TYPE GR		QUANTITY			40		ART DATE		West	
DRILLER	_	M. Hughes RECORDER T. Hartsfield APPRO	Sample		DR dard Penetration Test	LLING CC	MP. DATE	10/	22/2006	_
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comr	ments	% Rec	RC
0	767.10						E			
		Dark reddish brown sandy SILT					W.	38 E.J.		T
1			1	0-1.5	2-3-3	6		- 3		
2		10 100			3					1
3				12	34	32				"
i.	£.								2	
4			1				62	2 2 3		
5		GAA		-	1		4	5 80		1
6		SAA with dark minerals	2	5-6.5	3-4-4	8		10	5 - L	-
				1000000	(0)					924
7			1		- 57	易	10			
8									1	
9		2 70 7 N N N N N N N N N N N N N N N N N				-			PA SS	1
10					38				4.	
10		Brown SILT		100			12	-		1
11			3	10-11.5	3-2-3	5				1
12		-2					9.		1	1
13	11				\$			N N		
13								E 198		
14					54					1
15								8 0	36	
16		Gray brown SILT with relic bedding, damp, contains mica and black minerals	4	15-16.5	3-2-4	6			2	1
			11071	vision (NASACTO)	68 (8)	10			100	
17					×				1	
18									1	
19		4 - 1		1 4						1
									2 7 2	
20		Saprolite, very micaceous		1						
21			5	20-21.5	3-4-4	8	, e		54	.65
22	ii .	2 4 7			2 3					1
10		The state of the s				100		24 44		
23				0.0	12					
24		25. V N N N N N N N N N N N N N N N N N N					(3)	- 4	index 1	



Hole No.

GS-6

Sheet 2 of 2

767. **Plant Wansley** TOTAL DEPTH 41.5 SURF.ELEV. SITE Material Description, Classification and Remarks From To N % Rec Depth SAA 6 25-26.5 8-26-45 71 26 27 28 29 30 SAA (saprolite) 7 30-31.5 6-12-11 23 31 32 33 34 35 Saprolite contains quartz crystals (1/8") and bands 35-36.5 11-13-27 40 of orange-brown silt 36 37 38 39 40 Saprolite, contains feldspar and dark brown staining 14-30-50 80 40-41.5 9 41 BOH @ 41.5' 42 43 44 45 47 49 50 52 53 54 55

	THERN COMP	ANY	LING LO				Hole No.		GS-7 of 3	
		Plant Wansley			HOLE DEPTH	66.5			7.	.7
OCAT	ION	Gypsum Storage Facility								
NGI F		BEARING	CONTRA	CTOR	SCS	t	ORILL NO.	CM	E 550	
DILL	NO METHOD	HSA NO. SAMP	LES	14	NO. U	I.D. SAMPL	FS	0		
	G SIZE	LENGTH	COR	E SIZE		TOTAL	% REC	3	1	
		PTH 44.7' ELEV								
	GROUT	QUANTITY							1/2006	
DRILL	ER	M. Hughes RECORDER R. Mudd APP					MP. DATE			
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Comments	W E	% Rec	RQ
Depth			7	Fi 885			8			
0	794.70	Surface raked by bulldozer Red slightly sandy SILT						- 1	0	
1		Sand portion is medium & appears to be highly	1	0-1.5	6-8-9	17				100
2	127	weathered rock, very stiff, moist			20			5	- A	
-							Ve N	E.	K a N	7.0
3	8	a 6 5 a							2 J	
4		2000		The second				9		
5		Reddish brown elastic SILT with sand (MH);	-		0.22		LL-58		1	
_	3	weathered rocks larger - size of small to medium very angular pebbles	2	4.5-6	7-11-15	26	PI-26 gravel - 0.3%			
6		very angular pervises				1 1	sand - 21.2%			
7				*			silt - 29.6% clay - 48.9%			
8		vi y			4,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1050 A		Hñi	
9					¥X				0	
1197200				F = 1	9			1		13
10		SAA	3	9.5-11	2-8-14	22			Ť:	
11										
12			à						31.6.27	
		1								
13	-								1 8	
14	-								1	
15		Reddish brown elastic SILT with sand (MH);	700	14 5 40	3-4-8		LL-53 PI-8			
16		with interbedded layers of a yellowish clay of same nature as above - less weathered rock	4	14.5-16	3-4-8		gravel 0.6%	F3 3	of .	
		Access to the control of the control					sand - 29.1% silt - 45.9%		P.,	
17		- " " " " " " " " " " " " " " " " " " "		- 6			clay - 24.4%			
18				X.						-
19			10						100	
		Pod voncelavov SILT	-	-		141	-	35 5	ec-si	
20		Red, very clayey SILT, with very thin layers of extremely friable black rock,	5	19.5-21	2-4-5	9			log.	
21		medium to stiff, slightly moist	-	-			3		-	
22							11 /4	i i		
						6635	2			
23				1			l			1

SOUTHERN COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-7

Sheet 2 of 3

Plant Wansley 66.5 794 TOTAL DEPTH SURF.ELEV. SITE Elev. Material Description, Classification and Remarks No. Depth From To N % Rec 25 SAA, with feldspar 6 24.5-26 4-4-7 11 26 27 28 29 Light red, white, black clayey weathered rock with 30 7 large pebble sized pieces of intact rock quartz -29.5-31 2-4-7 11 like in appearance, stiff 31 32 33 34 Mottled pink, white, yellow & black sandy SILT (ML) non-plastic 35 with very small angular pebbles (weathered rock), 8 34.5-36 gravel - 1.0% 1-2-3 sand - 39.4% black material makes a "C" shape in x-section, 36 wet, medium stiff silt - 44.2% clay - 15.4% 37 38 39 Saprolite with Orangish tan clayey SILT with 3" layer grayish white 40 clayey SILT interbedded - very distinct layering, some 39.5-41 5-5-13 18 iron staining on white, moist, very stiff 41 43 44 45 Dark brown, black & white interbedded micaceous saprolite - heavily weathered, moist 10 44.5-46 5-7-22 29 46 47 48 49 50 SAA - wet 11 49.5-51 9-15-34 49 51 52 53 54 55 SAA, more weathered, very little intact rock,

12

54.5-56

8-29-40

69

SOUT	THERN COMF	DRILLI GEOLOGICA GEOLOGICA			g:	2	Hole No. Sheet 3 of 3	GS-7	
SITE		Plant Wansley	Į.		TOTAL DEPTH	66.	5' SURF.ELEV.	794	4.7
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N.	Comments	% Rec	RQD
57					alesta Qu elegas.		gramma a same nisa mi		
58						1 1	a 2 72 F		
59	\$8			17	42			- 1	
60					- *			18	0.1
		SAA	13	59.6-61	11-31-46	77		12,-	
61			13	39.0-01	11-31-46	''		# T	
62	172				22	18	2 19 19 19 19 19 19 19 19 19 19 19 19 19		
63			ŀ			88. 7	8	22	1111
64	=			1 2			143 143 154	.85	. 4 4
65		SAA			17) 18	a 1	25%	1	
66		BOH @ 66.5	14	64.5-66	14-31-50	81	* *		
67							# # ##		
68									9
69					*		8	* * =	
70					= =			E	
71				85	22		124		
72				.8	8 8 1	H	1		775
73			400	E 2			32	2	
74		and a second		1		1 1		2.5	
75									
76								***	255
77						1	in 19	. 1	
78					E 65			4-	
79			8 2				*		
80								7	
81							ă.	1 200	1
82		a a a a a a a a		107				- X-	
83							.5	J	*
84				-	* -				
85							E 1		
86					-		11 12		
87							4391	11 8	
		3 2 2 2	1	1	1				

	COMP	CEOLOGICA				- -	71	lo. Sheet 1		
	D SEPTE TOW	Went to the second seco			HOLE DEPTH	37.4	-			6.5
) \	7.4		COORE		12373					3
ANGLE		BEARING	CONTR	ACTOR	scs		RILL NO.	CM	IE 550	
	IG METHOD	HSA/HQ Core NO. SAMPLES		4	NO. U	.D. SAMPL	.ES	(0	
St. 10. 20. 155.		LENGTH							97%	
WATER	TABLE DEF	PTH 15.1' ELEV TIM	ME AFTE	R COMP.	24 hrs	DAT	E TAKEN		1.0	_
TYPE G	ROUT	QUANTITY	м		DRI			10/1		
DRILLE	R	S. Milam RECORDER R. Mudd APPRO	100			LLING ÇOI	MP, DATE	10/1	2/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	ard Penetration Test Blows	N	Con	nments	% Rec	RQD
0	766.50	38			4		***			
4100		Red SILT,		0.4.5	900000					
1		dry, medium stiff	1	0-1.5	3-4-4	8				= 7
2									1	
3						8 1		1		
4							88.8	OK. 8	1	
1120						903	8		3	
5		SAA, slightly moist, stiff	2	4.5-6	5-5-7	12		to the second		
6					100					
7			1	1				8		
8						30		5 218	LOSSET	
d1										
9					5			79 Y-Y	10	- 2
10		6" red SILT, with medium angular pebbles	3	9.5-11	3-8-9	17		E ST	Jan 1	
11		(black) 6" white powdery very fine sandy SILT	J	3.3-11	5-6-9	"				
12		6" dark green to black CLAY, with distinct layering, some weathered rock at bottom of sample								
- 5		a)				1 1	85	≋ 5± #		
13	- 6							14.5	- 4	
14									o 2	
15		Red sandy SILT (ML) with medium angular pebbles,						10		50
16	*	last 6" white & gray layers of very friable weathered rock - breaks down to silt	4	14.5-16	13-8-5	13	87		-	1
						\sqcup	1.502	1000	-day	
17		Begin Coring @ 16.3'	1						¥ Z	
18		Highly fractured/weathered dark gray interbedded GNEISS/SCHIST with 40 deg fracture - some pyrite						a second by		5
19	MI	flecks on the more weathered material		16.7-20.2					85	0
20										
							r w ^{ill}		R	14
21		Light gray interbedded SCHIST/GNEISS; fractured			72					
22		40 deg bedding		20.2-25.2				1	100	72
23				20.2-25.2					100	"
24										

a was a system of

Form GS9901 7-26-2004

DRILLING LOG GS-8 Hole No. **GEOLOGICAL SERVICES** Sheet 2 of 2 energy to Serve Your World **Plant Wansley** TOTAL DEPTH 37.4 SURF.ELEV. No. Depth % Rec SAA -25.2:30.2 SAA -30.2-35.2 35.2-37.4 SAA BOH @ 37.4'

OUTHERN	DRILLI						No.	GS-9	
nergy to Serve Yo	GEOLOGIC						Sheet 1	-P7 T T-	_
TE	Plant Wansley								2.7
OCATION	Gypsum Storage Facility								_
NGLE	BEARING	CONTR	ACTOR	NO. L	LD CAM	DHILL NO.	Civ	0	Fr max
RILLING METHO	Account of the control of the contro	_				•		37%	
CASING SIZE	LENGTH								
	STATE OF THE STATE	ME AFTER	Y	DBI			10/		
TYPE GROUT	S. Milam RECORDER R. Mudd APPRO	OVED		DRI				STATE OF THE STATE OF	
		Sample		dard Penetration Test				- 1-1-1	
Depth Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Cor	nments	% Rec	R
0 772.70			300-				- 1		⊢
1	Light tan clayey SAND, very stiff, very dry	1	0-1.5	10-13-15	28		1 a 1		
,		\vdash						2	
2				8 11			*** **	1	
3	4					25 B		7 . 9	
4				T ₁	-82	12	*	i)	
5	SAA			-	ted.	He			-
6		2	4.5-6	31-18-22	40			144	-
0				35			W	los .	
7	-		(18			1	
8					- 10				
9							5t		
10	Red SILT, moist, medium stiff	\vdash				19			
		3	9.5-11	5-4-5	9				0
11	White powdery SILT, dry, medium stiff	-						1	
12	- 30 mg - 1								
13	a w	1				2			1
14		10							1
	Light Tan slavey SAND very stiff day		-					A R	
15	Light Tan clayay SAND, very stiff, dry Auger refusal 15'	4	14.5-16	50/1"	ref	i li	in a		_
16	Begin coring @ 15.5'				- 1	E E			
17						-			
18	Medium gray, slightly weathered interbedded GNEISS	1	15.5-				yr Th	48	3
2.	and SCHIST		20.5					3	
19								(hed	
20				8"		in ⁴	8.0		0.4
21						3	N = 1		-
22								=1	100
		1	20.5- 25.5					100	!
23	-		20.0		185		+		
24 orm GS9901 7-2								-	

SOUTHERN ASCOMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-9

Sheet 2 of 2

SITE Plant Wansley TOTAL DEPTH 35.5' SURF.ELEV. 772

	20	Manufal Danadallan Classification of Danada	Sample No.		dard Penetration Test	N	Comments	0/ P	RQE
epth.	Elev.	Material Description, Classification and Remarks	NO.	From To	Blows	N	Comments	% Rec	HQL
25	Catalan I	Dark gray augen GNEISS, slightly weathered						4	
26	E E N			8	- 15 to				
20			- 12 - 12			100			
27	-			25.5-			Pi 584	100	8
8	15		-	30.5	8 8 8				-
9	it.	# * * * * * * * * * * * * * * * * * * *		,51 -			- #	(= <u>a</u>)	-
				75 12 12	5				
0	-	Carte tea e 8 o mai		384					
11	8= 1	W P B DO WEST		148		-			9
2		R AS			8			*	#31 #31
		Hard, competent		30.5- 35.5	9		a e "	100	10
3		e ne ^{se}		55.5					
4		s s				e I	ž!		
5		Property Control (March 1997)	1				U 12		
6		BOH @ 35.5'	-			-			- 8
	== = "		æ	1	8 8 8 .			72	
7	-							N 10	
8			1		81				
9				00 11					
	100			20			582		10
0	2	g and a second			8				3589
1	30				9.2		10	10	
12					ii e				
13	(2)		21	12	5 028				
		* "	1						
14	-			39			,	1	
5							10 W F		100
16						8 -	22	12	
17				- 11 T			500 g		
					(F)		₩ 8%	211	
18		20 e		08	10				
9				E 34	2007				
50		1	1			100			
1		1000 T 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			1 1				
					120				
52							*		
53		2 C 2		1					-
54		e u			1			1	-
55		50 St		1				12	
56	-	U Z n er smær z Su o	1		951 DCG				1

SOUT	COMP	000						Sheet 1		
	o Serve You					51.8				1.4
		Gypsum Storage Facility								
		BEARING								
DRILLIN	NG METHOD	D HSA/HQ Coring NO. SAMPLE	S	7.	. NO. I	J.D. SAMP	LES		0	70.3.50
CASING	SIZE	LENGTH							94%	
WATER		PTH 33.65 ELEV T							3.1	
	ROUT	QUANTITY				-1,000	-	190	20/2006	
DRILLE	R	M. Hughes RECORDER T. Hartsfield APPR					MP. DATE	5.000		
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Star From To	ndard Penetration Test Blows	I N	Comm	nents	% Rec	RC
	761.40	the state of the s		7111 121			1 11/2		A Rec	
E .	761.40	Dark reddish brown SILT with clay,	1				#		7 63	14
1		white sandy lenses and pebbles	1	0-1.5	1-1-3	4				8.
2	# (The second secon			3					
3	99	1 a = 1 a a a		V					2.47	l
14				20	48				Hill	1
4										
5		Stiff reddish brown SILT							1.0	
6			2	4.5-6	4-6-10	16			4	
-						1 1			1.09	
7	21				8 =				4. 7	
8								100	1	
9	a ·		1		E E					8 2
10	207	Saprolite, micaceous	-	12						\$3
F-1			3	9.5-11	5-15-20	35				
11		*	-							
12										1
13		and the second s								
	47			2.5					740	71
14				v II	2				P	100
15		SAA	4	14.5-16	5-10-11	21			4	
16	7			14.0 10	J. J.	[-']				
17				-	_					
:4				150				0.00	2	
18								-4-		
19				- 1					811	1
20		Saprolite and weathered rock		1					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n.
			5	19.5-21	50/5					
21		87 TH A T T		1	111				The state of	1
22									40	1
23		V						(E)	BE T	
24			1		1 2 Tu					

SOUTHERN COMPANY Energy to Serve Your World

Form GS9901 7-26-2004

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-10

Sheet 2 of 2

51.8 SURF.ELEV. 76 **Plant Wansley** TOTAL DEPTH SITE Standard Penetration Test Sampl No. RQD Material Description, Classification and Remarks Comments Depth 25 6 24.5-26 23-23-18 Saprolite 26 27 28 29 **Rock fragments** 29.5-30 30 50/5 Begin coring @ 30' Gray mica SCHIST with garnet and quartz throughout, 30-34.3 40 70 slightly weathered along fractures 32 33 34 35 34.3-39.3 50 100 37 Fresher with less weathering along fractures 38 39 40 39.3-44.3 100 85 41 42 43 44 45 44.3-49.3 100 88 46 47 48 49 50 49.3-51.8 100 80 BOH @ 51.8' 52 53 54 55

	COMP	DRILL TWorld GEOLOGIC	LING L	19		Single Single	Hole No. GS-11 Sheet 1 of 3	H 9	
SITE		Plant Wansley			HOLE DEPTH	61.0	SURF.ELEV. 773.9	9	
							е 2027081.8		
1	_	BEARING	-0				All the second of the second o		
DRILLIN	IG METHO	HSA NO. SAMPL	ES	13		.D. SAMPI	F80	1 - 1	
CASING		LENGTH							
WATER	TABLE DE	PTH 39.3' ELEV	TIME AFTER	COMP.	TOD	DAT	TE TAKEN		
TYPE G	ROUT	QUANTITY	М	×	DRI	LLING STA	ART DATE		
DRILLE	R	S. Milam RECORDER K. Hobbs APP	1000			LLING CO	MP. DATE		
Depth	Elev.	Material Description, Classification and Remarks	Sample No.		dard Penetration Test Blows	N	Comments % Rec	RQD	
0	773.90								
	7,000	11 21						31	
- 1					40000040		a to the second	4.0	
2		Reddish brown elastic SILT with SAND (MH), soft	1	1-2.5	2-2-3	5			
3					2		JD taken @		
4		- 1 to 1 t				3	3.0-5.0 feet		
5		O mara" A Six	1462	B 5			n offset hole LL-51 PI-17		
		Reddish brown SILT (ML), stiff	2	4.5-6	3-7-11		gravel - 0.3% sand - 26.4%		
6					20 =	8	silt - 32.9%		
7		11 ag 14 ag					clay - 40.4%		
8				12					
9					13				
10		Buff. Hard SILT (ML) with mica flakes, saprolite			170				
		San Hard C.D. (M.E.) Har miss manss, captains	3	9.5-11	22-50/2		UD taken @ 10.0 - 12.0 feet		
11						l	in offset hole		
12				-	LT.		non-plastic sand - 48.7%		
13		me of the second second					silt - 42.6%		
14	4	=			=		clay - 8.7%		
13		Light brown/reddish SILT (ML) with dark fractures,			in .	12			
15	#7 10 18	some quartz in fractures	4	14.5-16	2-4-5	9			
16						31			
17									
18		- 10	200	į					
19	n .		7 J. H. 13	0.0	4 =	1 - 1			
1				ē		1 1			
20		SAA	5	19.5-21	3-3-5	6			
21		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_		¥				
22						2	Lessonige		
23								- 15	
			1				2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

SOUTHERN COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-11

Sheet 2 of 3

61.0 SURF.ELEV. 1 77 **Plant Wansley** TOTAL DEPTH Standard Penetration Test ampl No. Comments Depth Material Description, Classification and Remarks From To Blows N % Rec Reddish brown SILT with mica flakes, 25 6 medium stiff ---24.5-26 - 3-4-7 26 27 28 29 30 SAA 7 29.5-31 9 0-5-4 31 32 33 SAA 35 34.5-36 3-4-4 8 8 36 37 38 39 40 SAA very moist 39.5-41 2-3-4 7 9 42 43 44 Yellowish orange SILT, very stiff with fractures 45 10 44.5-46 9-14-31 45 and dark stains on fractures 46 47 48 49 Yellowish orange SILT, hard, with relic banding 50 49.5-51 11 11-29-50/3 ref 51 52 53 54 55 SAA 12 54.5-56 41-50/3 ref

SOU1	HERN COMF	ANY	DRILLII OLOGICA			20	0.30	Hole No. Sheet 3 of 3	GS-11	
SITE	Jei De 10	Plant Wansley			120160	TOTAL DEPTH	61.0	The same of		3.9
	102200		la la	Sample No.	Stan From To	dard Penetration Test Blows	N	Comments	% Rec	RQD
Depth	Elev.	Material Description, Classification and Remarks		110.	PIONI 10	Diows	1"1	Comments	76 FIGU	1145
57				ma res		1911				-
58		1 10 N								
59	- 20				21	20		9 .		
60		Yellowish orange SILT with mica flakes		_	50 5 04	a 80				
61		BOH @ 61'		13	59.5-61	*		¥ 12 11 11 1		
62	-	5	8 8						9	
63		1				3)		9 5 37	71 11	
	5-							82.1		
64					15		2			12
65							. 20 F	2. ⁸ H		
66		1 ayus						****		
67		-						**	ls .	
68	"-		TA NOTE OF	100			1 1	9 a a		
69	8					31			1.78	
70								额		
71						8.0	α.			
72							1 1	1778		
					3	10				
73		1					1 1		91	
74	R			1	19				10	
75										
76		4							1 4	
77		1**					1 1		1	
78								В 3	=78	Ĭ.
79		. H				3		*		
80		, s		-		0.7				
81	15					1 8		:		
82		N N N N N N N N N N N N N N N N N N N							100	
83						2 *				
84						12				
85					1 6		1 10	LI I	-	

87

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SOUTH	ERN A
	MPANY
	MARIE MINE

DRILLING LOG

Hole No.	GS-12
	The same of the sa

nergy 10 Serve You SITE	THE RESIDENCE OF THE PARTY OF T	2	H. In	HOLE DEPTH	81.0'	11 3	SURF.ELEV.	773	3.2
531									
	BEARINGNO. SAMPLES	CONTRA	17	AVALUE SAMOLES		FS.	0		
MILLING METHO	NO. SAMPLES		17	NO. 0	TOTAL	% PEC	317	1 1	
ASING SIZE	LENGTH TIME SELEV								
152			17					9/2006	
TYPE GROUT	QUANTITY		×	1				9/2006	-
DRILLER	S. Milam RECORDER A. Grissom APPRO	VED Sample	Stano	DHII	LLING CO	MP. DATE			
Depth Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Con	nments	% Rec	RC
0 773.20	a by						- 4	1	
0 110.20				-				E	
1	Reddish brown, clayey, slightly sandy SILT,	\vdash		\$\$				10.5	181
2	very stiff	1	1.0-2.5	7-8-8	16		9		
3					l Î		1	in the same	
3	1		".					Stem 13	
4								M	
5	Very firm, layered light gray/yellow/red, dry, sandy		G garanna		-				
	silty highly weathered rock Saprolite	2	4.5-6	13-10-11	21			like D	
6			ĺ	-					
7			58.7					in a w	
8	1 h			123			Tenfo		
55						9			
9	=	-	v =	N				- E4 -	
10	SAA		0.533	10 10 07	40		B ₀		68
11		3	9.5-11	10-19-27	46		36		
	1						:		
12	1							is .	
13			1					- 3	
14	9.		59				1996 1		,
	1							1	59
15	SAA with some mica	4	14.5-16	10-18-32	50		- 1	2 3	19
16			El .		7			9	
17									
17			# 1 # 9	2			+4	9	
18		ř						4	
19		1		2					
	Variable at layered light growth and to block do	-		8 4	[.]		F.		
20	Very dense, layered light gray to red to black, dry, sandy silty highly weathered Saprolite with	5	19.5-21	13-28-50/4	ref			No.	-17
21	gneissic banding and minerals							Sign 1	
22	a e							1	
							350		
23				22			-	E	
24				0.54			FE	1000	

GS-12

Hole No. G

SITE	o Serve You	Plant Wansley	at the same	gradie Marking armen als v	TOTAL DEPTH	81	.0' SURF.ELE	v. <u>77</u>	
. = 0			Sample		dard Penetration Test				RQD
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments	% Rec	HUD
25		SAA with mica layers	-6	24.5-26	50/4	řef		era de la companya d	51 57725
26	新 表	Men a a a	Ů	24.5-20	30/4	101	4 R 240		
27		8 8 8 8 0 0		72 Gen	202		200	31	
100 5	n a fi		1 3	**	4		26		
28	William R	•	8		24		E 60	1 1 1	-
29	esg.						= ** 21		
30	100	SAA, with mica		00 5 04	50/4				
31	1245		7	29.5-31	50/4	ref	**		
		<i>s</i>				7			
32	- 2			34.55	9				:
33	80	a trans			2 2		(g) (f)		
34	12	-	1	-	3		01.32	45.0	
35		SAA, more silty		34.5-36	0-4-5	9	54 ³⁶	· .	
36			8	34.5-36	0-4-5	9	- 48a		
37					m m		30	-	8.
1							₩.	1 **	
38		E	1			1	6		
39			ME 40				M 245		
40		Firm, layers of orange/red/black, dry, silty sandy	9	39.5-41	3-6-8	14	U ±±1		
41		highly weathered Saprolite with small mica flakes	L.	05.5 41	""		N N		
42								1	107
1 9	5 W.				12		11 12 8	Sal	
43			1 2	155		1	*		
44	-		1.2					-	98 89
45		SAA	10	44.5-46	31-10-8	18	a 60		1
46	P	ge my					# 9 9	1 10	(e) (e)
47							14		
48									
49								12	
	77.5-4277	New dense layers of brown/red/orange/black		-				7.1	
50		Very dense, layers of brown/red/orange/black and mica, dry, sandy silty highly weathered Saprolite	11	49.5-51	11-30-31	61			
51		(abundant mica)	-	4	- V		1 2		lit.
52		4			Park Total				
53	-	g = 0.5							
54								1	
55		SAA plus ~4" of weathered quartz			£		8 8		
56	A Salation of	the second of th	12	54.5-56	6-6-11	17		. 1	

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SO	UTHERN A
7.90.	COMPANY
Fner	ry to Serve Your World

Hole No.

GS-12

Sheet 3 of 3

773.2 81.0 SURF.ELEV. TOTAL DEPTH **Plant Wansley** SITE ard Penetration Test No. % Rec Material Description, Classification and Remarks From To Elev Depth 57 58 59 Very dense, layered red/orange/brown/black, 60 59.5-61 11-26-46 72 fairly dry, sandy silty weathered Saprolite and mica with 13 several large rock fragments 61 62 63 64 SAA 65 14 64.5-66 12-50/4 ref 66 67 68 69 70 SAA 69.5-71 22-50/4 ref 71 72 73 74 74.5-76 Light brown /grey hard, dry Saprolite with banding 19-50/4 ref 75 76 77 78 79 17 79.5-81 6-9-12 21 SAA, very stiff 80 81 BOH @ 81' 82 83 84 85 86 87

	THERN	ANY	The reconstruction is		5 7		Hole No.	GS-13	ă
Energy 1	o Serve You	r World GEOLOGIC	THE PARTY OF THE P		The second name of the second na	-	Sheet		90.503
		Plant Wansley			and the same of th				0.6
		Gypsum Storage Facility			The second secon		E20		
		BEARING							
DRILLIN	IG METICO	HSA/HQ Cara iva sample	s	3-	NO. U.	D. SAMP	LES: ^	0	
		LENGTH							
WATER	TABLE DE	PTH 16.7' ELEV T	IME AFTER	R COMP.	24 hrs.	DA	TE TAKEN10	/10/2006	
TYPE G	ROUT	QUANTITY	М	x	DRIL	LING ST	ART DATE 10	/10/2006	
DRILLE	R	M. Hughes RECORDER R. Mudd APPR	OVED		DRII	LING CC	DMP. DATE 10	/10/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Star From To	ndard Penetration Test Blows	N	Comments	% Rec	RQD
осра:	1000000	Waterial Description, Orassinearon and Tremaine							1
0	780.60	Light reddish brown elastic SILT with sand (MH),						ox f	
1		dry, soft	1	0-1.5	2-3-1		Bulk sample taken at 1.5-3.0 feet		1
2							LL-50 PI-17		
	4				_		sand - 21.5% silt - 32.2%		
3							clay - 46.3%		
4									2.7
5	14	Red micaceous sandy SILT (ML), moist,			150		non-plastic	MA INC.	
		medium to stiff	2	4.5-6	3-3-6		sand - 40.9% silt - 39.1%		
6		1		1.0			clay - 20.0%		1
7	- A			<i>U</i> =	in "			Ţ.	1
8		A STATE OF THE STA	-		1				
				1.5					
9									
10		Reddish brown & black micaceous SILT, moist, medium to stiff - flakes apart along planes	3	9.5-11	2-2-7	9			
11	18	relict bedding		0.0 11	/== 1				
12							7 200		
		TOR @ 12.5'			je sne es		-	X	
13		Grey to greenish grey, hard interbedded GNEISS		12.5-14			1.5/1.5	100	90
14		and SCHIST with abundant pyrite			E		1 1 1	D	
15							}	3	
			1		15	- 3		4	
16		SAA, rust - water		14-19			5/5	100	94
17				5.					
18	8							301	1
			1 .				- MT 14	T. H.	13
19			-				1. 1		-
20					21			12 No(3)	
21								-	
		SAA		19-24	4.7/5			100	88
22	51		, z				1 1 1 1	100	
23								w [11]	
		· · · · · · · · · · · · · · · · · · ·							

24 Form GS9901 7-26-2004

SOUTHERN A COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-13 Sheet 2 of 2

78 37.5 SURF.ELEV. TOTAL DEPTH **Plant Wansley** ard Penetration Test RQD Comments No. N. From To Depth 25 100 26 Grey to greenish grey, hard fresh GNEISS 24-29 5/5 27 28 29 30 50 100 29-32.5 3.5/3.5 SAA 31 32 33 34 85 100 32.5-37.5 5/5 SAA 35 36 37 BOH @ 37.5' 38 39 40 41 42 43 45 46 47 48 49 50 51 52 53 54 55

SOUTHEF COA Energy to Serve	DRILLI MPANY Your World GEOLOGIC	Name Williams					o. Sheet 1		
	Plant Wansley			HOLE DEPTH	44.5'				7.7
	Gypsum Storage Facility						of the Control of the	3315.3	yis.
	BEARING						The state of the s	E 550	
DRILLING MET									3.0
CASING SIZE	LENGTH								
	DEPTH 20.4' ELEV TI								
TYPE GROUT	QUANTITY	мі	x	DR	ILLING STA	ART DATE	10/1	8/2006	
DRILLER	S. Milam RECORDER A. Grissom APPRO				ILLING CO	MP. DATE	10/1	9/2006	_
Depth Elev	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Com	ments	% Rec	RO
0 737.	70				es il				
1				-			-		
	No recovery	1	1-2.5	05 50/4	ref				1,02
2			1-2.5	25-50/4	lei				* 1 1
3									
4			62			* - 1	Company of		
5	Medium gray to dark brown, fairly dry, Saprolite					8	- Alexander	SE	
6		2	4.5-6	50/4	ref		# (j.)		
7	Begin Coring @ 6.5'				\vdash				
			0505		8	2.0	/0.8	26	
8	Dark to medium gray, weathered interbedded GNEISS and SCHIST;		6.5-9.5	1 2 2		3.0	70.6	26	,
9	steep fractures; heavy iron staining; v. low recovery			11					
10			29			0		40	
11				4					
12			9.5-14.5	52 E		5.0	/1.3	26	(
13					1 1				
							100		
14							- 5		Ĭ
15							- G_F		
16				59		Reame	d casing		
17						from 6	.5' to 25'	- 1	
18							ed coring 25'		
19				13			- F-1		
				22				-	
20									80
21				W			- Higher		
22							1		
23									
		1			1 1		10		1

Hole No.

GS-14

Sheet 2 of 2 Energy to Serve Your World 737 44.5 SURF.ELEV. Plant Wansley TOTAL DEPTH ard Penetration Test RQD No. Comments Material Description, Classification and Remarks From To 25 Dark gray, slightly weathered GNEISS; v. fractured heavy iron staining; 26 0 25-29.5 4.5/4.0 88 Becomes light gray to almost white around 28', 27 28 29 30 31 SAA 20 5.0/4.5 90 29.5-34.5 32 33 34 35 36 SAA 34.5-39.5 5.0/5.0 100 50 37 38 39 40 41 35 5.0/4.7 39.5-44.5 94 extremely weathered zone from 42 - 42.5' 42 43 44 BOH @ 44.5' 45 46 47 48 49 50 51 52 54 55

te sai a	a may Aldy a
	ERN
CC	MPANY

77An	\$17-54 E. D. B.
Hole No.	GS-15
	poot 1 of 2

S	ITE	2001	Plant Wansley								
L	OCATIO	ON	Gypsum Storage Facility	COORD	NATES N	123961	7.3	E .	2028	782.9	2/
A	NGLE	1 6.	BEARING	CONTRA	CTOR	SCS		RILL NO.	СМ	550	
D	RILLIN	G METHOD	BEARING		5	NO. U.	D. SAMPL	ES	———— <u></u>	mour ·	# 36
	ASING		LENGTH	COF	E SIZE	HQ	TOTAL	% REC.	9	7%	
			PTH 18.0' ELEV TIM								
Ļ	YPF GI	ROUT	QUANTITY	MI	x	DRIL	LING STA	ART DATE	10/19	9/2006	
			M. Hughes RECORDER A. Grissom APPROV					MP. DATE			
۲	T			Sample	Standa	ard Penetration Test			fi North		
_	Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Con	nments	% Rec	RQD
	0	719.70	Topsoil to 0.5'						-		
			Stiff, reddish brown, fairly dry, slightly sandy SILT with few pebbles	1	0-1.5	3-5-6	11		1.12,141		Ŷ.
H	1		with lew peobles								138
L	2						1 1		F 2 3	100	-
	3	=	1 - 7				1 1		ï.		K
		1					1		- Ex		
\vdash	4				e				- 100		415
L	5		Stiff, red and yellowish orange mottled,	2	4.5-6	3-5-6	11.				3
	6		fairly dry, SILT	_	4.5 0	000				72	
T	It =		1 - 1 - 1						W *		
-	7				100				420	90	
L	8	108 HE 1				1. 10		20			
	9	18 ·					12 13		5 X22 A		
-	3	7	1								
\vdash	10	-0.1	Soft, orange brown, slightly moist, clayey SILT with trace of pebbles	3	9.5-11	1-1-1	2				
L	11	- 142		14 B	12 12 X						
F	12								111111111	1	
+	12						1 1			25/	
F	13				5					west	
1	14			i i	e a					ur li	
Γ	45		Stiff, light tannish gray to red orange, slightly damp,	\vdash						107	
+	15		sandy clayey SILT with lots of mica and	4	14.5-16	1-1-10	11	20		100	
L	16		highly decomposed rock	-	+6						
	17										
		100			22		1		Service mark	2 = 1	
H	18			1		-			21 - 27		1
	19									1.	
	20		Dense, grayish brown, dry, silty sandy highly			200 TOWNSON	264925	-		3 =	
t			weathered rock (Saprolite)	5	19.5-21	10-21-21	42	27			8
-	21		TOR @ 21'	1			1			de la com	+
	22		Grey to dark grey augen GNEISS		20.7 00.0					100	90
	00		with calcite laminations		20.7 - 23.9					100	
-	23					9.0					

SOUTHERN AS COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-15

Sheet 2 of 2

41.3' SURF.ELEV. 719 **Plant Wansley** TOTAL DEPTH SITE Standard Penetration Test No. N Comments % Rec Élev. Material Description, Classification and Remarks From To Depth 88 Grey to dark grey, hard augen GNEISS with calcite laminations 23.9-28.9 92 25 26 27 28 29 30 96 98 28.9-33.9 31 32 33 34 35 100 85 33.9-38.9 36 37 38 39 80 100 38.9-41.3 40 41 BOH @ 41.3 42 43 44 45 46 47 48 49 50 51 52 53 54 55

	THERN		ING L	OG			The second second	o. 🔻 🦈		*
	COMP		AL SE	RVICES	3 2 3 4 W		Hat in	Sheet 1	of 2	Ţ
SITE _		Plant Wansley		1000 75	HOLE DEPTH	40.1	144	SURF.ELEV.	710	0.5
LOCAT	ION I	Gypsum Storage Facility	COORD	INATES N	123920	5.2	E _	202	9067.9	
ANGLE		BEARING	CONTR	ACTOR	SCS		DRILL NO.	CM	E 550	
DRILLIN		HSA/HO Core No. SAMPLE								
CASING	SIZE	LENGTH	co	RE SIZE	HQ	TOTA	L % REC.	~ 6	7%	
WATER	R TABLE DE		IME AFTE	R COMP.	24 hrs	DA	ATE TAKEN	10/1	9/2006	
TYPE G	GROUT	QUANTITY	М		DRI	LING ST	ART DATE	10/1	8/2006	1
DRILLE	R	M. Hughes RECORDER A. Grissom APPR	OVED _				OMP. DATE	10/1	9/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Standa From To	ard Penetration Test Blows	N	Com	ments	% Rec	RQD
		(144)				1 0	E 1	8		
0	710.50	Topsoil to 0.5' Reddish brown, sandy slightly sandy SILT,				-		Vision in		
1_		fairly dry, firm	1	0-1.5	1-3-5	8				
2	- 10 N			Q.) 2F		,	1	
. 3			1					1 1 1		
3	- 1		0.0				100		1.100	
4	-			N.		30 53	UD taken	@	1.50	
5							4.0 - 6.0 f		1	
6		Very stiff, reddish brown and yellowish orange mottling, fairly dry, slightly sandy SILT with	2	5-6.5	6-12-14	26	offset hole	of the last Warm		
501 T		trace of pebbles		-		1 .			77	
7		1								
8							ĺ		30.00	
9	A.						100	(6)		
10				18			CH 40 85		3	
10	 	Stiff, black/brown to yellow, fairly dry, silty SAND				1		935 F I	1 - 1	
11		and weathered rock (layered)	3	10-11.5	4-5-6	11			100	
12		¥		1 1			UD taken	a		
13							12.0 - 14	.0 feet in		1
				- 2			offset hol	е		
14	-		1	_					<u>v</u> = =	
15	-	Very loose, tan to light yellowish brown, slightly	-	-					1	
16		moist, silty fine grained SAND	4	15-16.5	WOH-2-2	4				1
17			-						100	
									1-5	
18									1	
19	8	m 885						j		6
20	-									

24 Form GS9901 7-26-2004

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23

SAA, loose

20-21.5

3-2-5

SOUTHERN A COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-16 Sheet 2 of 2

40.1 710 SURF.ELEV. **Plant Wansley** TOTAL DEPTH SITE ard Penetration Test ROD No. Comments % Rec Material Description, Classification and Remarks From To Elev. 25 Very dense, gray and dark brown layers, slightly 26-50/3 moist, weathered rock and clayey fine sand 25-26.5 ref 26 Begin coring @ 26.9' 27 Medium gray, hard mica SCHIST 28 3.2/3.0 93 25 with multiple fractures and iron stains in the first 26.9-30.1 2' with small quartzite veins 29 30 31 32 50 5.0/4.9 98 30.1-35.1 SAA, less fractured 33 34 35 36 37 5.0/5.0 100 35.1-40.1 38 39 BOH @ 40.1' 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

	COMP		DRILLI GEOLOGIC				N E	Hole No.		GS-17 of 2	
		Plant Wansle					50.4				3.1
		Gypsum Storage Facility									
		Gypsum Storage Facility BEARING									
ANGLE		BEARING HSA/HQ Core	NO DAMPIE	CONTR		NO I	J.D. SAME	LES)	,
	METHOD	LENGTH	_ NO. SAMPLE		RE SIZE	HO 140. 1	TOTAL	L % REC.	ç	94%	
	SIZE	PTH 21.65' ELEV	TI	ME AFTE	R COMP.	. 104	DA	TE TAKEN	10/	5/2006	
WATER TYPE G		QUANTITY						ART DATE			
		B. Filipovich RECORDER I. Millet/R.		III	130			OMP. DATE		100	
JANCE				Sample		dard Penetration Test			100		100
Depth	Elev.	Material Description, Classification and F	Remarks	No.	From To	Blows	N	Commen	its	% Rec	R
0	756.10	2 ₂ 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				3)		H M			\vdash
1		0.2" Topsoil Red SILT with sand (MH), elastic, dry, firr	n, small	1	0-1.5	2-3-3	6		all today		*
		pebbles, trace mica			6			LL-55		lb.	
2							1 1	PI-22		1 5	
3	1				301			gravel - 0.3% sand - 18.1%			
4	28 86				150	2	1 1	silt - 40.1%		1	
5	8x.	SAA	7 = (2	4-5.5	4-4-6	10	clay - 41.5%			
	- 35			_	6 . 11			i gurai	40	100	2.
6		and the								3	
7									1	1 1	1
8		or now provided the second				Si v					
	8					990 0					
9		Orange & tan sandy SILT (ML), dry, trac	e mica,	200	32000	= 5 8.79 % =		× .	28 94	Philip Baran	
10		crumbly		3	9-10.5	2-3-4	7				
11	ti ti	4 8 9 P								F	
12		00,8							8.1	1	
10.										7	
13					i n s	en en e			-		
14		SAA block mattled		-					8		
15		SAA, black, mottled		4	14-15.5	1-2-3	5	non-plastic			7
-		g 11		-							
16	- 4										
17			in the second								
18	iet.										
19			* a * *	7.				1			
		Orange & white clayey SILT, dry, trace r	nica,	5	19-20.5	2-2-2	4				
20		heavy black mottled		5	19-20.5	2-2-2	1				2
21						- 12			- 6		
22							1	N 2			
			8 =		-				20.00		
23		1									
24		A Part of the second se								-19	_

SOUTHERN AS COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-17

Sheet 2 of 2

50.4 756 SURF.ELEV. **Plant Wansley** TOTAL DEPTH SITE Standard Penetration Test RQD Comments Material Description, Classification and Remarks No. From To N Elev. Depth White & tan sandy silt (ML), moist, trace mica, 7 24-25.5 2-2-5 non-plastic 6 trace residual schist form, black, mottled 25 sand - 42.9% silt.- 51.5% 26 clay - 5.6% 27 28 29 Brown & white SILT, saturated, then 7 29-30.5 6-50-6 ref fractured gneiss last 1" 30 TOR @ 30' - Begin Coring 31 5 100 Grey very weathered fractured GNEISS 30-33.4 3.4/3.4 32 33 34 35 86 95 33.4-38.4 4.3/5 36 37 38 39 Grey augen SCHIST hard, fresh, iron 40 staining along fractures 95 38.4-43.4 4.9/5 100 41 42 43 44 45 66 43.4-48.4 5/5 100 46 47 48 49 48.4-50.4 2.3/2 SAA 85 86 50 BOH @ 50.4' 51 52 53 54 55

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1	COMPANY

Hole No. GS-18

Energy	Serve You		AL SE	RVICES				Sheet 1	of 2	-7
100		a rest of the late transfer and the	77.5	in en	HOLE DEPTH	32.5	Pf.	SURF.ELEV.	731.	.6
		Gypsum Storage Facility								
ANGLE	-	BEARING	CONTR	ACTOR	SCS		DRILL NO.	CN	E 550	5
DAILLI	NG METHO	NO. SAMPLES	3	2		D-SAMP	LES	~)	
	SIZE	LENGTH	_ cor	RE SIZE	HQ	TOTAL	L %'REC.	a II Seg	95%	_
WATER	R TABLE DE	PTH TII	ME AFTER	R COMP.	0	DA	TE TAKEN	1 1 1 1 7		
TYPE (GROUT	QUANTITY	M	ıx	DRII	LLING ST	ART DATE	10/	4/2006	-
DRILLE	R	B. Filipovich RECORDER L. Millet APPRO			DRII	LLING CO	MP. DATE	10/	5/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	From To	ard Penetration Test Blows	N	Cor	nments	% Rec	RQD
0	731 60	Topsoil removed by bulldozer					10			
-0	731.00	Red and Tan silty CLAY, dry	1	0.15	0.5.0	20			-	7
1			1	0-1.5	2-5-2	ref			W74.0	
2	140			- 1				70.0	4	
3										
N. Fr	1		=				1 10		1 11	
4						S 6	- x, x	3.4	11	
5								W 10 85 1	pe 14	
6	- 1	SAA, abundant mica	2	5-6.5	12-17-30	47			9	
_						1				
7		TOR @ 7.4'		L					March 1	
8		Begin coring		Tes St		-				
9		1.9						=10		
10		Fractured, weathered black and white augen GNEISS, heavy iron staining, thin clay rinds in fractures,		7.5-12.2			5	7/5.7	100	47
10		fractures ~30°, 3-6" b/t fracs	1	0.210 0.00			B 51	TO CHIEFE		
11			1						1. 0.	22
12						1		15		
13	X									
			1						1 1	1
14			82	a managagan washay sa				77		87
15		SAA		12.2-17.5	a a		5	.3/5.3	100	73
16	18								1 10	1.5
				de "	,	1				
17								H = 88	1	
18		Black and white fractured GNEISS, ~30° fractures,			L L			125 - 1	14	
19	- *-	occ, thin clay rinds, no Fe stains		17.5-22.5				5/4.8	96	9
20		pyrite calcite laminations								
100000	1 1			-	#!!	+-	8 8			
21		1					1 13			
22		SAA		22.5-27.5				5/4.9	98	1
23								111111111111111111111111111111111111111	TVV	
24							1	1 1	1	



Hole No. Sheet 2 of 2

GS-18

32.5 73 **Plant Wansley** TOTAL DEPTH SURF.ELEV. SITE Standard Penetration Test No. Comments % Rec Material Description, Classification and Remarks N Depth Elev. 100 98 22.5-27.5 25 26 27 28 29 lost circulation Black and white augen GNEISS, 3-6" b/t fractures, ~30°, ~300 gallons 60 27.5-32.5 100 epidote and pyrite in fractures 30 of water used to core 32' 31 32 BOH @ 32.5' 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

SOUT	THERN		ING L	.OG			Hole No		GS-19	10
Energy t	COMP	CEOLOGIC	CAL SE	RVICES	1	a		Sheet 1	of 2	
SITE	9.99	Plant Wansley	ti v oligiy		HOLE DEPTH	39.2	·	SURF.ELEV.	750	0.0
		Gypsum Storage Facility								
ANGLE		BEARING	CONTE	RACTOR -	· scs	W B	DRILL NO.	СМ	E 550	
	SE METHOD		Σ8 <u>.</u>	3	NO.U.	D, GAL	TLES			-
CASING	SIZE	LENGTH								
WATER	TABLE DE	PTH 17.25' ELEV								
TYPE G	ROUT	OUANTITY	N	AIX	DRILLING		TART DATE	9/27/2006		
DRILLE	R	B. Filipovich RECORDER A. Grissom APPR					OMP. DATE	The second second		
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	dard Penetration Test Blows	I N	Comr	nents	% Rec	RQI
Depui				7.0	Diono					
0	750.00	Topsoil 3/10' deep	+-	-			Bulk samp	le taken'		
1		Firm, reddish brown, fairly dry,	1	0-1.5	2-4-4	8	at 1.5 - 3.0 LL-54	feet		1
2		elastic SILT with sand (MH)	\vdash	1		22	PI-24	removed to		W
							gravel - 1.1 sand - 15.2		St.	
3		926	-				silt - 35.7%	6		
4	0 33	100 M (100 M (10		140			clay - 48.0	%		
5				1.		i		4, 1		
6		Very firm, stratified red orange to tan to olive gray, dry, sandy SILT (ML) (Saprolite)	2	5-6.5	7-8-12	20	Bulk samp	le taken'	1.	
			FATTER.				at 6.0 - 7.0			
7							gravel - 5.	0%	EG 9	
8				// // // // // // // // // // // // //			sand - 37. silt - 24.9%			-
9		sen see and a disc			W _*	1	clay - 32.5			1
10	12					1				
		Dense, layered dark red to greenish gray,	3	10-11.5	20-21-20	41	48		ř.	1
11_		dry, clayey SAND (SC) & Saprolite		10-11.5	20-21-20	"				
12	6								1	
13		Ma Ma		= 5						1
14						1	[]. ·			
14					8	1 12	Screen	a senja	100	
15		Auger refusal @ 15.2'						4	4	
16		Begin coring @ 15.2'						1.0	-	
17		Dark gray, hard, compettent GNEISS		77 K	7			ole at 17.25	V-2.1	
707		Water stains at soil rock interface Fracture with water stains 6" below TOR		15.2-19.2		P.	2	.9/4	73	6
18		Practure with water stains of Delow TON			II. 8			i des	3	
19	A S				2.2				1 10	
20						1			1	

24 Form GS9901 7-26-2004

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19.2-24.2

100 88

5.1/5

SOUTHERN A COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-19 Sheet 2 of 2

75 39.2 SURF.ELEV. **Plant Wansley** TOTAL DEPTH SITE Standard Penetration Test RQD N Comments % Rec Material Description, Classification and Remarks From To Elev. Depth Greensh grey, hard competent GNEISS 25 26 95 5/5 24.2-29.2 100 27 28 29 30 31 5/5 100 100 29.2-34.2 32 33 34 35 36 5/5 100 34.2-39.2 100 37 38 39 BOH @ 39.2' 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

nergy to	COMP	World GEO	DRILLIN DLOGICA	L SER	VICES		24	ALT	o. Sheet 1	of 2	1
		Plant Wansley	- II V		i Airi	HÖLE DEPTH	43.5'	177	SURF.ELEV.	713	3.8
		Gypsum Storage Facility									5
		BEARING									
	IG METHOD	HSA N	O. SAMPLES		10	NO. U	J.D. SAMPL	ES -	()	i we
	SIZE	LENGTH								n 1	**
	TABLE DE	The state of the s									
		QUANTITY				E ST					
		B. Filipovich RECORDER L. Millet							10/		()
-				Sample	Stan	dard Penetration Test			S-1		
Depth	Elev.	Material Description, Classification and Remarks	n - 1	No.	From To	Blows	N	Com	ments	% Rec	RC
0	713.80	The CLAY with acceptance do									_
1	(a)	Red stiff silty CLAY with organics, dry	We te	1	0-1.5	2-2-3	5			0.18	
	44		2							in you	
2			×1 (2)			W.			50 57	David	
3			W		. A				W II	146	
4	80					54			14/20		
5						SE 114			18	ja n	
5									0.00		-
6			A!	2	5-6.5	6-8-12	20			- US	
7			X II						i i		
8	E N					*	1			100	
1.			88 W							-X.	
9		and the second					1		***	1 - 3	
10	×	Yellow, stiff silty CLAY to clayey SILT									
11		(Saprolite) mica and occasional black mottling		3	10-11.5	6-8-7	15			1	1
40				\vdash				. 88			
12			-2							J	
13					V.					1	-
14					V.	12					1
15		e y								1	1
		Yellowish tan SILT w/occasional organics and	10 D	4	15-16.5	1-1-2	3				
16		black mottling, abundant mica, crumbly	4	_ "	13-10.5	1-1-2	١	Ž.	S 10 11/4	1 1 45	
17			4.		20				\$1.50 \$1.50		1
18	ne 63		7.00	1							
			1 31	(1)	i i	1	14	0.00		e ec (01)	
19		1 9 - 1 - 1				1	4	13		-	
20		Reddish orange SILT, wet		-				93		A	i
21		black mottling, trace mica, crumbly		5	20-21.5	1-1-1	2			100	
				- 27	1 5			8		2.87	
22					8					1	
23		a a ,		777	25	80.5			4,4,7		
				1				1		L.	1

SOUTHERN COMPANY Energy to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-20

Sheet 2 of 2

43.5 713 **Plant Wansley** TOTAL DEPTH SURF.ELEV. Material Description, Classification and Remarks % Rec Elev From To 25 Water table @ 26' White and brown SILT, residual schist form, 25-26.5 5 1-2-3 26 abundant mica, black mottled, saturated 27 28 29 30 Grayish tan SILT 30-31.5 1-2-3 5 31 32 33 34 35 35-36.5 13 2-5-8 36 trace mica 37 38 39 40 SAA, including mica content 9 40-41.5 30-30-50/2 ref 41 42 10 43.3 BOH/TOR @ 43.5 43 44 45 46 47 48 49 50 51 52 53 54 55

	COMP COMP	CEOLOCICA			5 S S S S S S S S S S S S S S S S S S S		Hole No. Sheet 1	GS-21 of 3	
-	A STATE OF THE PARTY OF THE PAR	Plant Wansley				77.5	SURF.ELEV.	789	9.4
LOCATION		Gypsum Storage Facility		INATES N			E 202	8695.2	
ANGLE		BEARING		ACTOR	SCS DF		DRILL NO. CN	IE 550	1
DRILLIN	IG METHO	HSA/HQ Core NO. SAMPLES		13	NO. U	.D. SAMP	PLES		
CASING	SIZE	LENGTH	co	RE SIZE	HQ	TOTA	L % REC.	92%	B D
	TABLE DE	0.000mm	IE AFTE	R COMP.	2 hrs	DA	TE TAKEN - 10/	3/2006	
TYPE G	ROUT	QUANTITY	м		DRII	LLING ST	ART DATE 10/	2/2006	
DRILLE	R	S. Milam RECORDER L. Millet APPRO	VED _	2 1	DRII	LLING CO	DMP. DATE10/	4/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Comments	% Rec	RQ
0	3	Topsoil removed to flatten area for rig	N. A	W - W		81	6 / 1 n 24 nc		
1							12.50	eg e fin	
2001		Red silty clayey SAND and Saprolite, dry,		1-2.5	400	5		- 10	1/-
2			1	1-2.5	1-2-3	5	af s		
3						84			3
4				18 T.	-	.,*		1177	ľ
5		Red silty SAND and schist Saprolite, dry, crumbly,			I' se ^{ell} a Ri vo		UD taken @		
		silty SAND	ĺ	4.5-6	4-8-14		4.0 - 6.0 feet in	4.4	
6			<u> </u>	1507	BALLE E		offset hole		
7	22.0								
8					20		. 1 27-172	1	0
9				e 1	B		3 E ===		
9				- "	10 ²		200 H C 200 H	- 173	
10		Brown and orange clay and highly weathered schist, with black mottling, dry,	2	9.5-11	8-12-13	25	UD taken @ 9.0 - 11.0 feet in	12	
11				-100000 NOSS	NOTE 1202 245022		offset hole		-
12					e e			34	
10					= 2 8		l de la cons	27.	
13	_			114			n 9 s sen	1. 0 20	
14	-	1 2 2 2		274				191	
15		Saprolite schist with some silty sand, Fe staining and	3	14.5-16	5-12-18	30	x 2	1	-
16		black mottling, dry, silty SAND, saprolite	3	14.5-16	5-12-18	30			
									1
17								B 60	
18	77 g								
19		Later to the		DWE-	25				
20		SAA	-	1	(a = 1			1 Val00	
-			4	19.5-21	4-6-14	20	* 100 6	9	55
21		1	-	**				187	
22							=1		
23	10						1 24 7	in organis	
all of			1		99		12///12/2018) i ira	1



DRILLING LOG GEOLOGICAL SERVICES

Hole No.

Sheet 2 of 3

ITE _		Plant Wansley	The second	2000年	TOTAL DEPTH	77.5	SURF.ELEV	789	
epth	Elev.	Material Description, Classification and Remarks	Sample No.	From To	ard Penetration Test Blows	N	Comments	% Rec	RQD
25	Teles.	Saprolite with some silly SAND , Fe staining and				4		Z	-
E		black mottling, moist	5	24.5-26	8-16-43	59		50	
26	DANGE PROBABILITY	The City of the Month			ne de la company	1		Was I	
27	Marie .	The state of the s	10.0	marian E	1	9		4	1000
28	and the second	30 mm - 10 mm			327 <u>. K</u> i	e 1	Z. oz.		76.3
29	and the second		TAMES OF	Brito St. C. Talilly Co.		11-12 1-48-14		Sicility i	40
30		Saprolite, silty SAND,	7. - 5.4	WEIGHT TO	and the second second	15	w		
A.		occ Fe staining, black mottling, moist, more cohesive	6	29.5-31	8-17-33	50	eng il gar	60	
31	W.		48 7						2
32				1 12000	SMILES CO	Aut Fall	ric y		
33	17.			Ki a		4		ii	
34	7			27.2		1 1			
35	1. 5	Black/green schist Saprolite, decomposed, some clay, dry	7	34.5-36	50/4	ref		10	
36		some Fe staining, occ black mottled	46	34.3-30	30/4 H.	man (şk)	eq.	2	1
37		and the second second second	4.	1	8		46		
			11 P		Mary 1	1- 1			
38		1	1		2 5 2 38 2 3 4			1 25	
39		-							
40		Gray clay and highly weathered Saprolite schist, crumbly, Fe staining and black mottled	8	39.5-41	41-50/4	ref	Karana I	30	
41	W V				0 - 10	egnen A	140 - 150 - 150 140 - 150 - 150	1	
42	L.M.	5x 4x 4x 1					25	1	1
43	la			# * a.			en kom	Bern con	}
44	Jax.		1			nte uni		-	100
- 6	1	Gray clay and highly weathered schist Saprolite,	1				21		
45		more cohesive, moist, occ heavy black mottled	9	44.5-46	12-18-24	42	National Section 19	90	2 20
46			40			Att. C	M. V	11	
47								140 O I	
48		1			1 h	1	41	gerten in	
49			E 601					9.0	
50		SAA wit silty SAND (SM) with more Fe staining	10	49.5-51	8-16-50/4	ref	non-plastic gravel - 3.8%	50	
51			U		KU 41		sand - 57.3% silt - 33.7%	1.00	
52			4				clay - 5.2%		
53	1			V.					-
54					E.	7		1	
Te		Gray-brown saprolite	13/82					The same	
55	74	City St. 10 m. school and provide the control of th	11	54.5-56	8-24-27	51	and - 1 - 10-10	30	

			•
SO	UTHE	RN	
		MP	
F			W-15

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-21 Sheet 3 of 3

1	Energy	o Serve You	GEOLOGICA GEOLOGICA	LSE	HVICES			Sheet 3 of 3	R. A.	
V	SITE _		Plant Wansley		= K	TOTAL DEPTH	77	SURF.ELEV.	789	9.4
	Depth	Elev.	Material Description, Classification and Remarks	Sample No.	. Star	ndard Penetration Test Blows	N-	Comments	% Rec	RQD
1	57		6.1						1, 4	N 10 T
~					= 16 ₆	5 8	Sanja A			
	58	- 1			-	v				
	59	- KI			12 TA -	. D				
	60		Silty weathered schist Saprolite, dry							
	61			12	59.5-61	50/4	ref			
	62		2.50							
						55	g 9	8 = 2 *	1	12
1	63			١.				With the second	. 1	
-	64	1	31 ×2 × ×				33 5	9		ti a
-	65		Gray silty SAND with highly weathered schist Saprolite, wet, Fe staining, occ black mottling (silty SAND)	13	64.5-66	50/4	ref	# F		
1	66		TOR Begin coring @ 66'	13	04.5-00	50/4	161	water table at 64'	12 th	
	67			72-	.50	and the second	9.8	100 E	- 1	
9	68		Dark gray and black SCHIST, regular fractures					n w 5 8, 200		
	69	-	heavy Fe staining		66-70				87	49
M	70	5%					W.	22	- S	
1	9, 11	5 1	SAA, with garnets			10	,	-		
ł	71			1	70-75	a		_E 10 E	100	88
ŀ	72				1 a, i	la i		8		
ŀ	73		Silver gray SCHIST, hard. little to no Fe staining in fracture				4	The second	, 3 2 0	
ŀ	74		few garnets		24	×		3 OC -		
	75							351		
	76				75-77.5		×	r 1,	90	100
	77			9 G				- V		
ĺ	78	2	BOH @ 77.5'				-			
Ì	79				at .	88		10 10	-	w
Ì			in Acco			<u>u</u> 8		8 8		= =
ł	80							- 5	15	
ł	81				1					
ł	82	-			\$8 					
1	83	-		la:		30		8		8
1	84				=======================================		6	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
ŀ	85	-	a a		8 5			6		÷
-	86									(2)
-	87				6	8		5 69 7 1	in is	
	88	001 7.26	N N	-				2 =		94

Form GS9901 7-26-2004

	THERN COMP	ANY	LING L			tion .	Hole No.		
in the		Plant Wansley			HOLE DEPTH	75.0		pergraph Till	9.3
		, Gypsum Storage Facility						29031.2	
		BEARING						ME 550	1927 6
	IG METHO		PLES	16	NO. U	.D. SAM	PLES	0	-
		LENGTH						5 Y 8 1	
		PTH 48.7' ELEV							_
		QUANTITY						0/3/2006	
DRILLE	R	S. Milam RECORDER L. Millet AP	Sample		dard Penetration Test	LLING C	OMP. DATE	1	Т
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments	% Rec	RQE
0	729.30	Topsoil removed to flatten area for rig	1			7 - 2	10 TO		-
1	# - 12				E 5				
2	- 7	Tan silty SAND and schist Saprolite, dry	1	1-2.5	3-9-16	25		to all	
							1.0	5 7 1 d	1
3				14	e e at		§ "A	The state of	
4			-						
5	19-4	Light brown SILT with sand (ML), crumbly		45.0	0.10.00	47	non-plastic sand - 20.8%		4-1
6) is 1.		2	4.5-6	9-18-29	47	silt - 65.6%	1	-
7						100	clay - 13.6%		
	N.			an i	53			1 = 1	
8				= 55			· · · · · · · ·	A STATE	١.
9				999	*		1 a 2	1.5.	27.
10	- 36 M	Brown silty SAND and schist Saprolite, dry,	3	9.5-11	4-8-38	46		ta s	
11		Fe staining and black mottling	3	3.5-11	4-0-30	"	8 9	1 15	1
12			-		200 10 90	4	0.000		
			*,		2	33_	e 2		
13				#5		1	C 1400		
14				To-	e e	. A.	2 × 1	58. Y	
15		SAA, less Fe staining	4	14.5-16	10-17-41	58			
16	(a)				-accential C				
17								- X-1	
18			. 1				27		
78				1					
19				- Apr.			2 -		
20	_	Contains abundant rock fragments	5	19.5-21	10-16-22	38	*		+1
21			Ľ			-			
22						1			
23					9 8				

SOUTHERN A COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-22

Sheet 2 of 3

7 SURF.ELEV. 75.0 TOTAL DEPTH **Plant Wansley** SITE Standard Penetration Test No. N % Rec From To Blows Comments Elev Material Description, Classification and Re Depth Tan silty SAND and schist Saprolite, dry, 25 12-36-50/4 some Fe staining and black mottling 6 24.5-26 ref 26 27 28 29 Schist Saprolite with brownish gray CLAY, 30 57 7 29.5-31 15-21-36 dry, Fe staining and black mottling, firm 31 32 33 34 Tan gray silty SAND with residual schist, dry, crumbly, 35 34.5-36 15-25-50/4 ref 8 black mottling 36 37 38 39 Highly weathered schist with tan and gray silty SAND, dry 40 ref 50/4 occ organics and heavy black mottling 39.5-41 41 42 44 Light tan and gray silty SAND with schist Saprolite 45 31-43-50/4 ref 10 44.5-46 dry, occ organics and black mottling 46 47 48 49 Schist Saprolite with silty SAND, dry, Fe staining 50 11 49.5-51 24-23-19 42 51 52 53 54 water table at 55' Highly weathered schist Saprolite with tan silty SAND 55 ref loose, Fe staining, black mottling, saturated 54.5-56 50/4

Form GS9901 7-26-2004

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-22 Sheet 3 of 3

75.0 SURF.ELEV. 729.3 **Plant Wansley** TOTAL DEPTH RQD No. Depth Material Description, Classification and Remarks From To 57 58 59 Highly weathered schist Saprolite with gray silty SAND 60 13 59.5-61 23-50/4 Fe staining ref 61 62 63 64 65 SAA, less Fe staining 15-50/2 64.5-66 ref 66 67 68 69 SAA 70 69.5-71 50/4 ref 15 71 72 73 74 Heavy Fe oxide staining BOH/TOR @ 75' 75 16 74.5-76 50/1 ref 76 77 78 79 80 81 82 83 84 85 86 87

	THERN COMP		RILLIN			2 2		Hole No. Sheet	Name and Address of the Owner, where			
_	100	Plant Wansley		STATE OF STATE		HOLE DEPTH	60.0					
		Gypsum Storage Facility										
	11/1	BEARING	7.40									
						NO UD SAMPLES 0						
	3 SIZE	LENGTH	HWIFLES)E 617E		TOTAL	v. DEC				
		PTH 12.6' ELEV	THE		COMP	TOD	- DATE	TAKEN				
		QUANTITY						176				
		S. Milam RECORDER L. Millet						IP. DATE				
DITILLL		C. Wilder	ATTIO	Sample		dard Penetration Test	T					
Depth	Elev.	Material Description, Classification and Remarks	-	No.	From To	Blows	N	Comments	%'Rec			
0	697.90				\$27			7				
-			rack.	750.00				2 - 1.	10.00			
1		Reddish brown elastic SILT with sand (MH)				g = 0	L	L-54 PI-18				
2		7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	1-2.5	3-6-8	-	ravel - 0.3% and - 19.3%				
3	- 第				6		1,000	It - 46.6%				
4		5 5 1 2 2					cl	ay - 33,8%				
4				415				*				
5		Orange and light orange SILT, dry, dark red mottling, firm	a 1,71	2	4.5-6	3-3-4	7.					
6		dark red moding, min	18 95 H	_	4.5-0	3-3	-					
7							2.0	1.2				
									hil .			
88			000				1 = -1					
9												
10		SAA, occasional black mottling	7.5	.79				345 151 1549				
10		July 1		3	9.5-11	2-2-2	4	. A				
11	1050		NI.	-		¥11						
12						V ₂ 1						
13	×		a	10		24						
									4			
14		a!	8						1 1 5			
15		Light gray and tan SILT with sand, orange and black	k .	023				on-plastic				
16		mottling, firm		4	14.5-16	1-2-6		and - 29.0% llt - 58.2%	H.			
69074	100		_		80 00 10			lay - 12.8%	- 5			
17					- 4				× -			
18	* 18	to the grown and the		g # 1	28	0						
19									1 .			
Hill.		Landing Billion of the Control of th		220	H G	k 10		To a set	6			
20		Tan and brown SILT, residual schist, dry, crumbly, orange and black mottling	2	5	19.5-21	9-20-25			1			
21	8				Sa Santa			* 2 5				
22	4			10		W C			100			
								- 17	100			
23	I	W M 1881			(6)				1.0			

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-23

Sheet 2 of 3

6 60.0 SURF.ELEV. **Plant Wansley** TOTAL DEPTH SITE Standard Penetration Test RQD N Comments % Rec Material Description, Classification and Remarks Elev From To 25 SAA, residual chert form 6 24.5-26 9-14-21 35 26 27 28 29 30 Highly weathered schist, with red silty SAND, dry, 42 29.5-31 9-14-28 black mottling 31 32 33 34 Red brown and tan SILT, saturated, abundant 35 ref mica, residual schist, occasional black mottling 8 34.5-36 50/5 36 37 38 39 non-plastic Brown, tan and green silty SAND, dry, black mottling, 40 gravel - 6.9% 53 9 39.5-41 0-24-29 trace mica sand - 50.0% 41 silt - 30.0% clay - 13.1% 42 43 44 SAA, Schist Saprolite 45 10 44.5-46 22-50-3 ref 46 47 48 49 Green, orange and white SILT, dry, with mica, 50 49.5-51 11 20-50-2 ref schist Saprolite 51 52 53 54 SAA, some red mottling 55 12 54.5-56 50/2 ref

SOUTHERN A COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No. G

GS-23

SITE	o Serve You	Plant Wansley	LOL	TVICES	TOTAL DEPTH	60	0.0' SURF.ELEV.	697	.9
2000 00	Elev.	Material Description, Classification and Remarks	Sample No.	Star From To	ndard Penetration Test Blows	N	Comments	% Rec	RQD
Depth	Elev.	material description, disconnection and normality		1 12 140 1	-			1	growing and
57			AV.	75.					
58		residual		59.5-61	50/4	ref			-
59	-	schist Saprolite, abundant mica, dry		e V a e					
60		BOH @ 60'	13		24	-) — — — —
61			Same I		1	100			
62	-			J 00 m	0.000 1.0 00 m.	98 N			26
63				990			- 1		
64	i s	2 to 1 to 1			×	59 ⁽⁵⁾	9 2		1 4
65			n 1		7,0 m	2 9	2 X **	2	
66			"	_ II _ 8			**************************************		
67					ė	177	25 E		
68					e sta				
69				2	ñ			* 24	
		a control of the cont			2	27		, e	
70				, (ii. * = 1	\$ 12	*	18		
71			-		8 5 ¥				
72	-		i i	= 1 584 ₈	-	00	2	100	
73	-	1 5 5 1		U B				\$	
74				0 9	1 6 7		7 7		
75				Si 23	10000000				
76	3			ii Si		1			
77		a "			501		r ^B st	1	
78	1							15	
79						İ	N 100	1	8
80		8 , 2			**				
81	18								
82				100					
83	: is		9		40				8
84		200 a			, , , , , , , , , , , , , , , , , , ,				
85		The state of the s		#1 				177	26
86					FE 15				
87							20		
					-		9 8 11	1	0.00

	THERN COMP	ANY		LOG	17 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Hole No	Sheet 1	GS-24 of 3	
		Plant Wansley			HOLE DEPTH	65.5		SURF.ELEV,	72	5.0
_		Gypsum Storage Facility								
ANGLE		BEARING								
The Selection Con-	IG METHO	D HSA NO. SAME	PLES	14	NO.	J.D. SAMPLI	ES		,	A
CASING	SIZE	LENGTH	c	ORE SIZE		TOTAL	% REC.		- Y -	17
	TABLE DE		TIME AFT	ER COMP.	TOD	DATE	E TAKEN	10/	5/2006	-
TYPE G	ROUT	QUANTITY		MIX	l DR	ILLING STAI	RT DATE .	10/	5/2006	
DRILLE	R	S. Milam RECORDER R. Mudd AP					IP. DATE	10/1	1/2006	
Depth	Elev.	Material Description, Classification and Remarks	Sampl No.	From To	ndard Penetration Test Blows	N .	Comm	nents	% Rec	RQ
0	725.00				B 8			- 1	*	
1	8 1							1	D= 04	
9-50	- 10	Red SILT, with pieces of weathered	1	1	2010	18		+		
2		rock - dry, very stiff		1-2.5	3-6-12	18				
3				1	W.			K:		
4	20				(0			1 - 8		
5	2 H	Reddish tan micaceous SILT, with pieces		la li se	1.41					
6		of weathered rock - dry, very stiff	2	4.5-6	5-9-16	25		. "	11	
12	(A 1.00)							ar wee	100	
7			. 1					18.0		
8	- 1			, " ·				u I		İ
9				="						8
10		Tannish silver micaceous clayey SILT, dry,	-	-						
		very stiff	3	9.5-11	12-17-25	42		# 0		
11				-	8					1
12										
13					- X			- 1		1
14			44							
15		Light brown micaceous clayey SILT, with large								29
		pieces of easily plyable weathered rock	. 4	14.5-16	6-15-24	39		×		1
16		(black & gold), dry, very stiff		-				= 19 ±1		
17					Y.				2	
18			1 000 2						4.	
19		a de la companya de		2.4		9± ,			10 0 0 0	
:						S 4			- 1	
20		SAA	5	19.5-21	10-15-50/4	Ref	1.5	Suzza I	6	1
21					in the			1	at 11.	1
22								E 1.		
23					100 100.0	8		e and) A	
					E/)			88	100	

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-24

Sheet 2 of 3

72 65.5 SURF.ELEV. **Plant Wansley** TOTAL DEPTH SITE No. Comments % Rec Material Description, Classification and Remarks From To Depth Elev. 25 6 24.5-26 19-21-34 58 26 27 28 29 30 SAA 29.5-31 22-37-43 80 7 31 32 33 34 Large seams of black as well 35 8 34.5-36 20-27-38 65 36 37 38 39 40 SAA, mostly silver & gold, no black seams, 39.5-41 20-19-36 55 still dry 9 41 42 43 44 45 Tan, silver & white SILT with pieces of weathered 50 rock, moist - iron staining on faces 10 44.5-46 19-21-29 46 47 48 49 Orangish CLAY with tan & silver SILT with SAPROLITE, seams of very dark brown silt 50 49.5-51 48 12-22-26 throughout - moist, iron staining 51 52 53 54 Gray & silver SAPROLITE, very micaceous SILT (ML), some black areas - all breaks apart easily 55 59 12 54.5-56 13-22-37

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-24 Sheet 3 of 3

725 65.5 SURF.ELEV. Plant Wansley TOTAL DEPTH Sample No. Standard Penetration Test RQD N % Rec Material Description, Classification and Remarks From To Depth 57 58 59 SAA, iron staining, moist 60 59.5-61 12-26-29 55 13 61 62 63 64 SAA, more powdery, dry 65 64.5-66 Ref 50/4 TOR @ 65.5' no coring 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87

	THERN COMP	ANY			2	80	Hole N	lo. Sheet		-
-		Plant Wansley			HOLE DEPTH	43.7'	er aprilare			5.7
OCATI		Gypsum Storage Facility	(*)							
	-									1
RILLIN	NG METHO	BEARING		6	NO. U	J.D. SAMPL	ES ·		0	
24	SIZE	LENGTH							98%	
	*	PTH 20.2' ELEV TII							27/2006	
-	ROUT	QUANTITY	М	×	DRI	 LLING STA	RT DATE	9/2	26/2006	to:
		B. Filipovich RECORDER A. Grissom APPRO								0
			Sample	Stand	dard Penetration Test				1 - 1 - 1	-40
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Com	rnents	% Rec	R
0	785.70							of E		L
1		Topsoil 4/10' deep Soft, reddish brown, moist,	1	0-1.5	2-2-2	4		1		
		slightly sandy SILT	1 500	35853						
2								75 To No.		
3	181				95					
4							î's			
- 1 P	10	Very stiff, light brown to red (layered), fairly dry,					ti.	N Jacobia		
5		sandy SILT & Saprolite	2	4-5.5	7-10-18	28		109		
6			- W 45		W ==					
7								w et		
7				**		Į.				
8				20.0						
9	4 - 4 -				9, 1				1	.:
10	107	Very stiff, yellow to orange red, dry, sandy clayey SILT and some Saprolite	3	9-10.5	7-15-12	27				
				a.i		-	18	8 g = 5	1 4	
11	1 11			2.5				a 5 S	1	
12								127		
13	1,	the Administration of the Control of		- 47	-2	(3 (28)		an e		
	9 9		3							-
14		Yellowish brown to dark gray, dry,		11	17 Martin Service Services		14			
15		clayey SILT & weathered schist Saprolite	4	14-15.5	8-50/2	Ref	120		150	
16			\vdash		38 UA - I		46		15/10	
				*	93	30			. 4	
17			1			1 1			A	

Form GS9901 7-26-2004

SAA

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19-20.5

12-27-32

59

water table at 20.2'

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-25 Sheet 2 of 2

Plant Wansley TOTAL DEPTH 43.7 SURF.ELEV. 78 Depth Material Description, Classification and Remarks From To N % Rec SAA for 4", then light gray, dry, soft-highly weathered Saprolite 24-25.5 19-50/5. Ref 6 26 27 28 Auger refusal @ 29.0' Begin coring @ 29.0' 29 30 Dark gray mica SCHIST, weathered with many rust stains/water fractures 31 29-33.7 4.4/4.7 25 93 32 33 34 35 33.7-38.7 45 36 5/5 100 37 Dark gray , hard mica SCHIST with iron staining along fractures 38 SAA 39 40 95 38.7-43.7 5/5 100 41 42 43 BOH @ 43.7' 44 45 46 47 48 49 50 51 52 53 54 55 56

SOU	THERN	ANY	DRILLIN	Electric Control	334 6 98). The state of	BA CHOLLENGE	
	to Serve You								Sheet 1	77	r-way Te
		Plant Wansley									
		Gypsum Storage Facility									v \$
ANGLE		BEARING		CONTR	ACTOR	SCS	-	DRILL NO.	CM	E 550	
DRILLI	NG METHO	HSA/HQ Core	NO. SAMPLES		11	NO. U.	D. SAMI	PLES	2		
CASIN	G SIZE	LENGTH		_ cor	RE SIZE	HQ	TOTA	L % REC.		4%	
	R TABLE DE		TIM	E AFTER	COMP.		D/	ATE TAKEN	9/2	7/2006	
TYPE	GROUT	QUANTITY	. 3.	м	×			TART DATE	Mis Server	turnil Cons	
DRILL	ER	B. Filipovich RECORDER A. Grissom	APPROV	VED _			LING C	OMP. DATE	9/2	7/2006	1
Depth	Elev.	Material Description, Classification and Remarks	s .	Sample No.	Stan From To	dard Penetration Test Blows	N	Com	ments	% Rec	RQD
			(-# 7F)				, a.	V (%)	- × -		100
0	744.70	Topsoil 2/10' deep	9 F						4 2 4		1.1
1		Stiff, reddish brown, very dry, sandy SILT		1	0-1.5	4-7-7	14	UD taken	Ø.	i in	. ·
2	- 15 W	with some mica fragments	2 N					1.0 - 3.0 fe	et in		A IN E
				8			e 20 T	offset hole		1	
3										an ar ar	
4	4		1 1				= 1		tradite.		
5	1 _			18		e Bur			- 7		1
6	11	Hard, light grayish brown, dry, clayey SILT & weathered Saprolite		2	5-6.5	10-14-21	35		100	1 22	
					211		10.55555			4.35	
7							8			Ğ.	
8	= {	and post of the control of the				**	7.				
9	.11					T (#1			5 12		
	1	market desired				e a +				4-7	i
10		SAA, increase in Saprolite				22		UD taken	37	1 1	
11				3	10-11.5	8-16-32	48	10.0 - 12. offset hole		20.5	1
12	75						l			T.	1
10	17 92			N a	1 2	an ees a		100		Mi ey	1
13			¥- 2				1	ĺ			3 2 0
14	+			\$.00 10		Œ	l	-			
15					10			4 9			
16		SAA		4	15-16.5	11-25-32	57		-		
	Ŷ.						1			- N	1
17	- 3			1			1			1	
18	10			1	22		-		8		1 10
19	100			1				1			

20-21.5

Form GS9901 7-26-2004

to Serve Your World

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-26

Sheet 2 of 2

Plant Wansley 60.0 744.7 TOTAL DEPTH SURF.ELEV. SITE Standard Penetration Test Material Description, Classification and Remarks No. RQD Depth Elev From To % Rec 25 Ver stiff, light grayish brown, slightly moist, very clayey SILT & Saprolite 6 25-26.5 12-13-15 28 26 27 28 29 30 SAA, abundant mica 7 30-31.5 25-50/5 Ref 31 32 33 34 35 SAA 8 35-36.5 14-35-50/5 Ref 36 37 38 39 40 SAA Reached water 59 table 40-41.5 20-29-30 41 42 43 45 SAA 46 10 45-4.5 10-14-20 34 47 48 49 50 SAA 50-51.5 51 50/5 Ref Auger refusal @ 50.5' Begin coring at 50.5'
Grey, weathered mica SCHIST, iron staining along 52 50.5-55 75 53.0 fractures and relict bedding 54 55 56 57.0 58 extremely weathered to 60' BOH @ 60' 90 50 59.0

55-60.0

		THERN		NG L	OG -	F		Hole N	0.		No. of Street,
4	F	COMP o Serve You	CEOLOGICA	AL SEF	RVICES				Sheet 1	of 2	- 6
	SITE -	10,52579	Plant Wansley		74*	HOLE DEPTH	35.0		SURF.ELEV.	699	3.7
			Gypsum Storage Facility	COORD	INATES N	123722	4.5	E	202	9687.5	E _A n]
	ANGLE	1	BEARING	CONTR	ACTOR	scs		DRILL NO.	CM	E 550	1
Ī	million and	NG METHO			7	NO. U.	D. SAMP	LES		7	
	CASING	SIZE	LENGTH	_ COF	RE SIZE		TOTAL	% REC.	2 140		
	WATER	TABLE DE	Y Y							~ - 4	
	TYPE G	ROUT	QUANTITY	м	x	DRIL	LING ST	ART DATE	10/	3/2006	
1	DRILLE	R	B. Filipovich RECORDER L. Millet APPRO	VED		DRIL	LING CC	MP. DATE	10/	3/2006	
	Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	dard Penetration Test Blows	N	Com	nments	% Rec	RQD
	Deput				117-	Tel Karring Barrier		1	81		4
0.0	0	699.70	Red SILT, dry, stiff, trace mica			7/2 1/ 1/A	-				
G	1			1	0-1.5	2-3-4	7				
	2			180	5	32	4		36	1	
						iā.				19.5	Ë
	3	100			8				10		4.7
: 3	4				100	to the			100	1.1.4	
	5	ik .		a l	4 (4)					= 1 0	
	6		Red and tan SILT, schist Saprolite black mottlrd, dry, firm, trace mica	2	5-6.5	2-2-3	5	E			
							K.		Market and a		1
	7	1					1 8			4	
	8			l			-	(i) (ii)		17. 37.	
	9			i	5 1			-		11	
	-10		R e B							17	1.
	10	V 2	Brown SILT, residual schist form, red and							1	4
	11		black mottling, moist, including mica content	3	10-11.5	1-2-2	4	12			
	12					de			1		1
	13			1	144		-	1 10		11.	
-				١						131100	
	14									1,000	1
	15		David and collect became fine conductil Treatmented								-
	16		Brown and yellow-brown fine sandy SILT, saturated, black mottled, ~10% - 15% mica	4	15-16.5	1-1-2	3				
				-	A =		1		(- in States)	N le	1
	17	8 8				**	1			1	
	18						1				
	19						10			35	
	9	4					T _e	1		1	

Form GS9901 7-26-2004

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22

23

SAA, schist Saprolite

20-21.5

2-2-3

5

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-27

Sheet 2 of 2

699 **Plant Wansley** 35.0 SURF.ELEV. TOTAL DEPTH Standard Penetration Test Sampl No. RQD Material Description, Classification and Remarks % Rec Depth Elev. 25 Gray SILT and highly decomposed schist Saprolite, 25-26.5 5-5-12 17 brown mottling, wet, quartz vein (1/4") at end of run 26 27 28 29 30 Gray SILT and highly decomposed schist Saprilote occasional black mottling, saturated 7 30-31.5 19 7-6-13 31 32 33 34 SAA BOH @ 35' 17-35-50/3 ref 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

	HERN . COMPA o Serve Your	ANY					Hole No.	heet 1	
		Plant Wansley	0.000	1 to 1 to 1	HOLE DEPTH	64.	0' SUF	F.ELEV.	813
		Gypsum Storage Facility			ALC: ALC: ALC: ALC: ALC: ALC: ALC: ALC:				
		BEARING					2.0		AND THE RESERVE
	_	HSA NO, SAMPLE	18	14	NO. L	D. SAM	# 1 25	2	
CASING		LENGTH					7.		
	TABLE DEF						The state of the s		
TYPE GR		QUANTITY					START DATE	THE PROPERTY AND A	2/2006
	R	The same of the sa					COMP. DATE		16.7
			Sample	Stand	dard Penetration Test		1 40	- 14	
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments		% Rec
0	813.40	Surface raked by bulldozer		\vdash		_		7.00	- 1
1		approx. 1" of slightly humic red-brown topsoil,	1	0-1.5	2-3-4	7		112	25%
2		else red-brown, very soft CLAY			V Î		94		
	-				20	, ±			le si
3	-			1	60 55.		g		y 1
4				1		207	UD taken @ 4.0 - 6.0 feet i	n	
5		Reddish brown SILT, schist Saprolite with			por use Ma		offset hole		E 7
6		gray mica plates 4 mm to 1 cm	2	4.5-6	11-12-16	28	moist afte rainfall 9/1	Old Stranger of the	50%
	1,000			= =			. annun of I	1	Sp. L.
7	1	em in the state of	8 1			1		570	ge /
8			4	-		31 (22)		- 1	Maria Control
9	in water	and the second s				1		$m \leftarrow - i \frac{\xi}{4\pi}$	100
10	100	Tan SILT coating of soft gray mica schist	\vdash		32 =0 -	10		1.5 24.0	
		Saprolite	3	9.5-11	11-18-24	42	Dry		66%
11				11	1		UD taken @		1 2 %
12	3 3			"	1	1	11.0 - 12.5 fee		
13		24-2					offset hole		F. J
					7	1	1	- 1	24
14				-5 338	the state of		2 4		Eg.
15	- 3	SAA	4	14.5-16	10-20-24	44	Dry	2	40%
16			574	-]		tipella da la	1
17				- 1			1 2		1
					*		1		
18	8							į.	
19				he s					1
20	1 to	Less tan SILT - mostly soft light gray, olive sheened		1	4		91 3 50		
21	1013	mica, schist Saprolite	5	19.5-20	12-20-29	49	Dry	22	1
14.				1				2	1 1
22	St. S.				1 S		12.5		
23	1700	and the control of the control of					i i		1 of .
					8 2		1	-	

SOUTHERN

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-28

Sheet 2 of 3

- In			Sample	Stand	dard Penetration Test			4	
epth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments	% Rec	RC
25	1111 4	SAA, tan SILT staining, gray to olive matrix,						a 14 13	45
20		black MnO oxide stained relic fractures	6	24.5-26	11-16-26	42	Black MnO stained		
26	- 85	K-					relic fractures		
27	150	2 2 15t 10t	1.5			1 2	- E		
21		2 10 2 3 3 4			1		12. 33		
28			0	22290	L.				
29			-	= 2 7 7		1			
29			-			S.		87	
30		SAA, hard	7	29.5-31	15-55/6	ref	moisture seen on	100	
31	1010		- 6	28.5-01	15-55/6	10.	relic fracture faces	/12"	
31	3				4 9 9 9		1.0		1
32			S		E1 001				
33			. 99			1	- N -		١
00		* **		*	1	1	1		1
34						1			1
35	200 NA	SAA, hard							
			8	34.5-36	18-24-32	56		100%	
36	-		-		* *	1			
37	1				68	1		84	
	36.1			22		32	E 17	- 6	
38	_				#_ =		21 22	. 1	-
39			12						1
		CAA all light olive hard & grov					9		
40		SAA, all light olive, hard & gray	9	39.5-41	23-35-38	ref	24 hr	50%	1
41					34		77		1
40		m res			-				
42	-					1	FE CONTRACTOR	27.0	1
43			1		25		201	T. 100	1
44	1	945 B		8				1	1
44		A STATE OF THE PROPERTY OF THE		¥6	12				
45		SAA, soil damp, hard but spoon saturated - most likely a saturated relic fracture or schistocity	10	44.5-46	25-50/6	ref	saturation @ 45.5'		
46		likely a saturated relic fracture of scriistocity	10	44.5 40	25 50/0	.			١
	-			81			0		1
47			L						1
48				iv.				1	١
		5 94 95 EN STATE	<i>+</i>					1	1
49		1 12 25 12 12 12 12 12 12 12 12 12 12 12 12 12]	SII		1		
50	_	SAA, Saprolite fully saturated, dark olive brown when	11	49.5-51	20-50/5.5	re	f Auger refusal		
51		fully saturated, hard		79.0-01	20-30/3.5	"	at 50.5'		
4				1	27	1	Stopped auger 9/13/00	3	
52		4							
53	(Ma)	Set casing/started coring	\vdash			1	Start core 9/20/06	- 4	1
1				52.4-54			" s		
54	1	Too soft to core - rock/hard soil lenses - resume				_			1
55		rotary w/casing & water (not H.S.A.) at 54'				123	easily broken apart		
		Black highly weathered schist	1	54-56.5	50/4"		laterally - strong vertically	-	-1

SOUTHERN AND COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No. GS-28 Sheet 3 of 3

SITE			Plant Wansley TOTAL DEPTH 64.0 SURF.ELE							
	Depth	Elev.	Material Description, Classification and Remarks	Sample No.	Stand From To	dard Penetration Test Blows	N	Comments	% Rec	RQD
		2011				- 1	17 2 9 10			
Ì	- 57	*				00.61		(iuminima e-thth		
-	58	-			56.5-59	20 blows no movement		(jumping cathead) 1.5" recovery		
-	59			4				2 . A	NS 52	
1	60					41		1 1 1 20 E	2001 10	25
	61			2 g					a a	4 7
	62		Set well @ 62.0'			201				
	63				64	20 blows		= 10		
	64		BOH @ 64.0'			no movement	a *	1.5		i in
1	65				9	9.11	12	80 E		
Ì	66			S				To Top of	S 9	
1						1 to 1				
1	67	20			18.85	n s e			g = 5	1.5
1	68			0.	Ji w	**			% S	
	69		75 2 2 2 2			100				
1	70_		a + a			d		y 81	1 3	ē - II
	71		ten in the interest in the int			See and	-	-8	far.	#
	72					W _e at		160		
	73		26 0 0 0 0 0 1		30	1.0			24 W	
	74	() ()				!		2 "		
	75		128 Sept 1		8	-		2 20 20	1 915	
	76						100	a)	1. 9	
	77					22			2	
	78							200		504T
			1			09	16	*		
	79					1 1		en o	8	
	80						19	*		
	81							1		00
10,5	82				r v	. 3			100	240
	83		1 1	1.				* * * * * * * * * * * * * * * * * * *		
	84	100	The second secon				7			
	85	-			14					
	86					10				
	87							-		
	88			1 .		4		- V		

	COMP	CEOLOCICA		The second second			Hole No.	eet 1	GS-29 of 2	10
	o Serve You							177	- HF.9	7
SITE _		Plant Wansley			2000 St.		2553160		746	
	-1-22				123655				3298.2	
ANGLE		BEARING	CONTR	ACTOR	SCS		DRILL NO.	CMI	= 550	
ORILLIN	IG METHOS	D HSA - NO. SAMPLES	1.11.11	14	NO.÷	J.D. SAM	PLES	0		- 4
CASING		LENGTH	_ coi	RE SIZE	. 0		NL % REC			_
WATER	TABLE DE								/2006	11.
TYPE G		QUANTITY					TART DATE		/2006	
		B. Filipovich RECORDER S. Bearce APPROV			110	ILLING C	OMP. DATE	9/14	/2006	Ü
			Sample	Stan	ndard Penetration Test			. ,	4.	
Depth	Elev.	Material Description, Classification and Remarks	No.	From To	Blows	N	Comments		% Rec	RQ
0	746.70	1 (1)			<u> </u>				Ties Ties	-
1	12		1			1"				122
	Si .				8	1	77			
2		100					1 1		1	
3	×					-	II_40 DL 40		Fat I	
4		Red silty, clayey SAND (SM), stiff, with mixtured relict quartz grain, fine-medium, and biotite fine to coarse,	2	3-4.5	5-6-6	12	LL=43 PI=12 gravel - 7.2%	66	30%	
		highly weathered Saprolite or colluvium mixture; damp	8250		151585		sand - 48.5%			5 = 5
5	- 11					1	silt - 23.9% clay - 20.4%	955		
6	9				- S		Bulk sample ta	ken		
							6.0 to 8.0 ft	Fig. 1		
7				N = 0		1	100			
8		-3					44.0	The same	F 1	
9		Firm, mottled, red-brown silty SAND/sandy SILT and yellow-brown SILT, with traces of biotite and relict	3	8-9.5	3-4-5	9	1	- 20	50%	
		metamorphic bonding; damp			155 1051					
10							P	o nhaj	T 1	
11	383								1	
10			. 19				1,000			
12		a to de la contra	8						2 1	1
13	17 17	Firm oilyans light array to all in annut, Ol 7 (41)		-	2 2		non-plastic	84	8 180 C	1
14	1 . %	Firm, silvery, light gray to olive sandy SILT (ML), with relict muscovite schist Saprolite, texture very apparent	4	13-14.5	2-4-8	12	gravel - 1.3%		100%	,
		and very thin black streaks; dry	N.		and parties		sand - 43.4% silt - 49.1%			
15		100000000000000000000000000000000000000					clay - 6.2%		9	1
16				1			8 % ***			
17	(W								1	1
			-	8	TO STATE OF THE ST	- *	1			
18		do	5	18-19.5	3-3-6	9				
19	= =	dry		1		1			-3 =	1
	17			1			F 11 06	1 1 1		
20							N - HI			1
21	89		- 3		w .		* 5			1
22			13				a 0		1-	
22		Firm, band light olive (2") w/2" of red-brown 2" of					2 %	- 1	1	
23		It. olive SILT as above and relic	_	-	0.0	1	fracture wet @ 23.0'	4	17	
24		schist textures in each section, relic fractures cross- cut relic schistocity and have black MnO coating	6	23-24.5	2-3-5	8	soil is moist			S

SOUTHERN A COMPANY

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-29

Sheet 2 of 2

SITE Plant Wansley TOTAL DEPTH 50.0' SURF.ELEV. 746.

ooth.	Flore	Material Description, Classification and Remarks	Sample No.	Stan From To	dard Penetration Test Blows	N	Comments	% Rec	RQ
epth	Elev.	material Description, Classification and Hemarks	110.	From 10	Biows	N	Comments	76 Hec	HU
25		And A manager of the party of		U 000	i			en *	2
26				ments of			all a	-	
	4: M	en apie - mandis	- B		- X		*	0	
7						W I I			
8			6.4		A.s. Carrier				
	10 - 10 to 1	Very stiff, light olive silt & clay mixture (ML-CL), maybe some graphite mixed in, schistocity present,	7	28-29.5	6-9-11	20	water on spoon moist soil		
9		highly weathered rock	_	20-29.5	0-3-11	20	soil very slippery		
0	1		100				when rubbed between fingers		
1					remarks to the	S.S.	between migers		
7					2				
2	-					. +	9 2		
3			7			, av			
4	he he i	Stiff, reddish brown SILT, one black MnO filled fracture (relic), other rock fabrics absent; wet	8	33-34.5	7-6-8	14	wet '	8 -	
	V ₁	- Marie 1997	e West	Tis in	r star or me	- 1			
5	201		ie - 20		14	175	**************************************		
6			1977						1
7	139 (6)				5	100			
12.7	76	Hard, weathered schist Saprolite w/abundant muscovite,		SAMOO DAAGAA CORAL			E E		
8	-	graphite and silty SAND (SM) (white & red) from weathered feldspar, relic fractures w/black MnO	9	38-39.5	13-36-50/5"	ref	non-plastic gravel - 8.9%		
9		coating and fill organics; moist		e esta a		1000	sand - 59.1%		ı
10	11.		1.00	i omborij	Brooks Burn	Page 1	silt - 28.0% clay - 4.0%		ı
U				1.4					1
11			1	A	10	20		10,2	1
2			119	9	TAY W				
			the s				5.7		
13	-		1000			0 12	over weekend	= 15m	1
14			10	43-44.5	16-25-50/6"	ref	came back and had 15' of water		1
15	1977					L The	15 of water		-
	N N		#						1
16				527	1.4		2 2		
7					0		7x* =c		
18							2 5		
19	15 (4	Hard, brown Saprolite, flakey-micaceous with silty sand properties	11	48-49.5	50/5"	ref	20' water	= "	1
0				1	1	"	set well	32.50	
50		BOH @ 50.0'				-	A A	-	+
51	- 1						a , a		
52							2 70 8		
							#	1	
53					The state of the s) Day		2	1
54						5	1.5		-
55	V nes		1 120	And the second		- 15			1
56	- 7	and the second control of the second control	part or a	and the second	W 12 - " +			1.5	1

	THERN COMP	ANY	2747-11575	NG L	OG RVICES	* **	¥ 0	Hole N	o. Sheet 1	GS-30 of 2	T.
-	10 Serve You		_			HOLE DEPTH	56.5	1.70	3-570-10-2-41 = -3-1 = 4-1		1.6
		Gypsum Storage Facility									
ANGLE		BEARING				SCS		DRILL NO.	CM	E 550	
. 40 5 5 5	ING METHO		MPLES		10	NO. U.	D. SAMP	LES)	1100
	G SIZE	LENGTH		COF	RE SIZE	- N	TOTAL	% REC.	H**		
		PTH ELEV	TIM	E AFTER	R COMP.		DA'	TE TAKEN	9/19	9/2006	
		QUANTITY									Į.
		B. Filipovich RECORDER R. Mudd								4	9
			1	Sample No.	Stand	dard Penetration Test		-	ments	% Rec	R
Depth		Material Description, Classification and Remarks	-	NO.	From To	Blows	N	Com	ments	% Hec	Н
0	714.60	Organics top 3"	7			W-		Rain last	night		100
1				1	0-1.5	1-2-3	5		- T		
2	s	Red SILT, medium stiff, moist	20 1	-	* 10						
R SALES									100		
3_				.8	=	W 25		1134		R n	
4			Ť.		32 H		40.00			1.1.81	
5	(4)		7		e n	198			7.2		
6		Sandy, red & tan mottled SILT, medium stiff, moist	25 4	2	5-6.5	2-4-5	9			- 4	1
0	-	mediam sun, moist		-	0 0.0					VALUE OF STREET	
7					6 8 5 L	98	, = 1			E 144	
8			j.		60 B					4	
9	3 80			Le e		1 1	150		(1)	15. 41.11	
20.01					85 ₂₄ (8)	g 6 g				-	
10		Sandy, mottled orange & tan SILT, fine sand portion	١,		4.					W 7	
11		soft, moist	g 19	3	10-11.5	1-2-2	4			. V	
12			1			9 1				1	
13		* - R		*		a sh			10 1124		
			1	7.2		* *	1.5				
14	-							40	- Tel 4	210	4
15		a a same			a jan					121	
16		Light tan SILT w/interbedded layers of white weathered schist, large angular quartz pebble		4	15-16.5	WOH-WOH-1	1				
		included, very soft, moist			1					7 3	1
17				10.00	1 22 28	T US		7. 34			
18					SI SI			6			
19	181			1				10.00			
010											
20		Tan sandy SILT with fine to medium sand portion,				0.1		water t	able at 20'		
21		pieces of weathered rock, some as large as small pebbles & black in color, soft & very wet		5	20-21.5	1-1-2	3	8:		. 4	
22		pennies a black in color, soit a very wet	7		SA 02				- X 51 41.		
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1							
23	+	1						500		+	
04					1	6	1	ı		1	- 1

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-30

Sheet 2 of 2

56.5 SURF.ELEV. 714 **Plant Wansley** TOTAL DEPTH Material Description, Classification and Remarks % Rec Elev. From To Depth 25 Light tan sandy SILT w/black weathered schist 25-26.5 3-4-7 11 26 intrusions, some mica flecks, medium stiff, moist 27 28 29 30 SAA, with white schist layers 30-31.5 16 5-6-10 31 32 33 34 35 Gray & tan sandy SILT, w/mica intrusions, 31 weathered in place with obvious bedding planes 35-36.5 5-9-22 36 (Saprolite), very stiff, moist 37 38 39 40 Layered red, yellow, orange SILT, very stiff, 69 40-41.5 8-19-50 41 moist-bedding planes 42 43 44 Set well @ 44.5' 45 Clayey SILT Interbedded, layered orange, red, yellow & white heavily weathered Saprolite, very stiff, moist 10 45-46.5 18-50/3" ref 46 47 BOH @ 46.5' 48 49 50 51 52 53 54 55

S In sec	COMP	ANY					35.65	Sheet 1	GS-31 of 1	1
SITE	The state of the s	Plant Wansley	With the second second		HOLE DEPTH	43.5'		100000000000000000000000000000000000000	MOSHU - MARK	3.5
					123799			The second second		
ANGLE		BEARING	CONTR	ACTOR	scs	DRI	LL NO.	СМ	E 550	
DRILLIN	IG METHO	D HSA/HQ Core NO. SAMPLE	s	5	SCS NO. U	D. SAMPLES		C	r	
	SIZE	LENGTH	COI	RE SIZE	HQ	TOTAL %	REC.	9	9%	
		PTH					1040			3
		QUANTITY		92				and the second second	Tenth &	
DRILLE	R	S. Milam RECORDER K. Hobbs APPR	OVED		DRIL dard Penetration Test	LING COMP.	DATE	10/2	1/2006	_
Depth	Elev.	Material Description, Classification and Remarks		From To	Blows	N	Comr	nents	% Rec	1
0	843.50								1000	
1				50.					88	
		Light brown/reddish sandy SILT, organic matter,	1	105	540				4	
2		stiff		1-2.5	5-4-6	10				
3	E 1000 65	The second secon						i gasal	F- 7	
4	7			61 0					- 4 4	
5	-	Very stiff, buff. SILT						P1 4		
6	Y.		2	4.5-6	11-13-13	26		and many	5	
12	12-1			62	* 1 1				e de la composition della comp	
7	- 10							and a	Se year	١.
8	+ + +			W =	e Wall				40	l
9					3					
10		Very stiff, yellowish orange SILT ,		ODCOD STORY		1			1	
11		relic gneissic features	3	9.5-11	8-9-8	17		7/ 5		
12	1	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							#- 1	
				- 53				11 12 19		
13					***				4. 4	1
14				#1 17 20						
15		Medium stiff, yellowish orange SILT,		14.5-16	145	9			4	1
16		gneissic banding, dark oxidized stains	4	14.5-16	4-4-5	9			1	
17				290		2		primar 1s		
#	e Field		100	2 0				- 1	- j	
18						1			tan a	
19							92			
20		Buff Saprolite with gneissic mineral bands, stiff,	5	19.5-21	7-6-13	19			1. 3	
21		sandy SILT	5	19.5-21	7-0-13	19			er ä	
22								- 1		
23	- 11-2	TOR @ 23.5'		2.0	F 1991			-21. 25	11	

DRILLING LOG GEOLOGICAL SERVICES

Hole No.

GS-31

Sheet 2 of 2

43.5 SURF.ELEV. **Plant Wansley** TOTAL DEPTH RQD % Rec Elev. Pink and gray, hard, slightly weather of granitie GNEISS 23.5-28.5 iron staining along fractures 28.5-33.5 33.5-38.5 38.5-43.5 BOH @ 43.5^t

Southern Company Generation

A

Drilling Co: SCS Page 1 of 1 Well Name iect: Gypsum Storage Facility ation: Plant Wansley Driller: M. Hughes Rig type: CME 550 Elevation: GS-1 Drilling method: HSA/HQ Logger: A. Grissom Sampling methods: SPT & Core Dates drilled: 10/17/06 No. SPT: 8 Total depth: 54.7 No. UD: DEPTH ELEV. -2.6 850.3 TOP OF CASING 0.0 847.7 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC NA TOP OF SEAL NA ANNULAR SEAL TYPE: 1/4" Bentonite Pellets 38.7 809.0 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 39.7 808.0 SCREEN TYPE: Schedule 40 PVC DIA: 2" OPENINGS WIDTH: 0.01" **OPENING TYPE: Slotted** BOTTOM OF SCREEN 798.0 49.7 BOTTOM OF CASING 54.7 793.0 BOTTOM OF HOLE 54.7 793.0 Uncontrolled Copy 3/24/2017 1:16:28 PM

Southern Company Generation

A

Page 1 of 1 Well Nar Drilling Co: SCS Project: Gypsum Storage Facility Location: Plant Wansley Driller: S. Milam Rig type: CME 550 Elevation: GS-2 Drilling method: HSA/HQ Logger: S. Bearce Sampling methods: SPT & Core Dates drilled: 10/23/06 to 10/24/06 Total depth: 45.7' No. SPT: 5 No. UD: DEPTH ELEV. TOP OF CASING -2.9 837.1 0.0 834.2 GROUND SURFACE **BACKFILL MATERIAL** TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 805.2 TOP OF SEAL 28.0 ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 803.2 31.0 FILTER PACK TYPE: #2 Filter Sand 798.5 BOTTOM OF RISER/TOP OF SCREEN 35.7 SCREEN TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01"** OPENING TYPE: Slotted 789.5 BOTTOM OF SCREEN 44.7 BOTTOM OF CASING 45.5 788. BOTTOM OF HOLE 45.7 788.5 Uncontrolled Copy 3/24/2017 46:28 PM

Southern Company Generation

P :: Gypsum Storage Facility on: Plant Wansley

_ievation:

Logger: K. Hobbs

Drilling Co: SCS

Driller: M. Hughes

Rig type: CME 550 Drilling method: HSA

Page 1 of 1

Well Name

GS-3

	97	A at	***		DEPTH	ELEV.
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	·		e a di e	TOP OF CASING	<u>-3.1</u>	806.3
	П			E 3		20
Technol and				GROUND SURFACE		<u>80</u> 3 <u>.2</u>
				22	à a a	
				a	118	
				# (*) z]	s "	
			- BACKFILL MATERIAL	***************************************	s (g 1)	330
			TYPE: Bentonite Chips			
					5) (#)	-81
			_ RISER CASING			
	9-		DIA: 2*		e de	
			TYPE: PVC	2		
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			The state of the s			
		8		1 1		
		A _		TOP OF SEAL	34.7	768.5
			ANNULAR SEAL TYPE: 1/4" Bentonite Pellets	e e jene j		As a
and the same of th		88	TITE, 1/4 Denome renes	TOP OF FILTER PACK	<u>37.2</u>	766.0
				= 1	2.	
		_	FILTER PACK TYPE: #2 Filter Sand	<u>.</u> an ∫	34	-
				# 11 N 80		
			20 H H		20.5	2012
the state of the s	-	<u> </u>	<u>BOTTO</u>	M OF RISER/TOP OF SCREEN	38.5	764.7
				**	(a)	
			DIA: 2" TYPE: Schedule 40 PVC Pro	Pack	12	10 10 10
	=		OPENINGS WIDTH: 0.01"		12	
	<u> </u>		OPENING TYPE: Slotted	10	4	(2002)
		— —		BOTTOM OF SCREEN	-48.5 —	754.7
- A voga - v		<u></u>		BOTTOM OF CASING		754.7
		*****		BOTTOM OF HOLE	48.5	754.7

Southern Company Generation

Page 1 of 1 Drilling Co: SCS Well Na Project: Gypsum Storage Facility Driller: S. Milam Location: Plant Wansley Rig type: CME 550 Elevation: GS-4 Drilling method: HSA/HQ Logger: K. Hobbs Dates drilled: 10/25/06 Sampling methods: SPT & Core Total depth: 35.5' No. SPT: 5 No. UD: DEPTH ELEV. 809.0 TOP OF CASING -3.1 GROUND SURFACE 0.0 805.9 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 20.5 785.4 TOP OF SEAL ANNULAR SEAL TYPE: 1/4" Bentonite Pellets 782.9 TOP OF FILTER PACK 23.0 FILTER PACK TYPE: #2 Filter Sand 780.4 BOTTOM OF RISER/TOP OF SCREEN 25.5 SCREEN TYPE: Schedule 40 PVC DIA: 2" OPENINGS WIDTH: 0.01" **OPENING TYPE: Slotted** BOTTOM OF SCREEN 771.4 34.5 770.0 BOTTOM OF CASING 35.3 **BOTTOM OF HOLE** 35.5 770.4 HOLE DIA. 4" 6:28 PM

Southern Company Generation

Drilling Co: SCS ect: Gypsum Storage Facility Page 1 of 1 Well Name ion: Plant Wansley Driller: M. Hughes Rig type: CME 550 Llevation: GS-5 Drilling method: HSA/HQ Core Logger: K. Hobbs Sampling methods: SPT & Core Dates drilled: 10/22/06 No. SPT: 5 Total depth: 30,8' No. UD: DEPTH ELEV. -2.9 776.0 TOP OF CASING 0.0 773.1 GROUND SURFACE **BACKFILL MATERIAL** TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 758.8 TOP OF SEAL 14.3 ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 19.3 753.8 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 20.6 752.5 DIA: 2" TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 30.6 742.5 BOTTOM OF CASING 30.6 742.5 BOTTOM OF HOLE 742.3 30.8 Uncontrolled Copy

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Drilling Co: SCS Page 1 of 1 Well Nar Project: Gypsum Storage Facility Driller: M. Hughes Location: Plant Wansley Rig type: CME 550 Elevation: GS-6 Drilling method: HSA Logger: Sampling methods: SPT Dates drilled: 10/21/06 No. SPT: No. UD: Total depth: 41.5' DEPTH ELEV. -2.6 769.7 TOP OF CASING 0.0 767.1 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL 26.0 741.1 ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 28.3 738.8 FILTER PACK TYPE: #2 Filter Sand 30.0 737.1 BOTTOM OF RISER/TOP OF SCREEN SCREEN TYPE: Schedule 40 PVC Pre-Pack DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 727.1 BOTTOM OF SCREEN 40.0 BOTTOM OF CASING 41.5 725.u BOTTOM OF HOLE 41.5 725.6 Uncontrolled Copy 3/24/2017 1:16:28 PM

Southern Company Generation

Drilling Co: SCS Page 1 of 1 Well Name ct: Gypsum Storage Facility Driller: M. Hughes ion: Plant Wansley Rig type: CME 550 clevation: GS-7 Drilling method: HSA Logger: R. Mudd Sampling methods: SPT Dates drilled: 10/11/06 Total depth: 66.5' No. SPT: No. UD: DEPTH ELEV. 797.4 TOP OF CASING -2.7 0.0 794.7 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets 54.7 740.0 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand, 6 bags 739.7 BOTTOM OF RISER/TOP OF SCREEN 55.0 SCREEN TYPE: Schedule 40 PVC Pre-Pack DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 729.7 65.0 729.7 BOTTOM OF CASING 65.0 BOTTOM OF HOLE 66.5 728.2

HOLE DIA 8" 3/24/2017 1:16:28 PM

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Southern Company Generation

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Page 1 of 1 Drilling Co: SCS Well Nar Project: Gypsum Storage Facility Driller: S. Milam Location: Plant Wansley Rig type: CME 550 Elevation: GS-8 Logger: R. Mudd Drilling method: HSA/HQ Sampling methods: Dates drilled: 10/12/06 Total depth: 37.4' No. SPT: No. UD: DEPTH ELEV. -2.9 769.4 TOP OF CASING GROUND SURFACE 0.0 766.5 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets TOP OF FILTER PACK 15.5 751.0 FILTER PACK TYPE: #2 Filter Sand, 2 bags BOTTOM OF RISER/TOP OF SCREEN 749.1 17.4 SCREEN DIA: 2" TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 739.1 27.4 729.1 BOTTOM OF CASING 37.4 BOTTOM OF HOLE 37.4 729.1 3/24/2017 PIA. 4"6:28 PM

Southern Company Generation

P- Gypsum Storage Facility n: Plant Wansley _ievation: Logger: R. Mudd

Drilling Co: SCS Driller: S. Milam Rig type: CME 550 Drilling method: HSA/HQ Core

Well Name Page 1 of 1 GS-9

Sampling methods: SPT Dates drilled: 10/12/06 Total depth: 35.5' No. SPT: 4 No. UD: **DEPTH** ELEV. 776.4 TOP OF CASING -3.7 GROUND SURFACE 0.0 772.7 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 761.2 11.5 TOP OF SEAL ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 13.0 759.7 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 757.7 15.0 TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 25.0 747.7 BOTTOM OF CASING 30.0 742.7 BOTTOM OF HOLE 35.5 737.2 3/24/2017 1:16:28 PM

Southern Company Generation

Page 1 of 1 Well Nar Drilling Co: SCS Project: Gypsum Storage Facility Driller: M. Hughes Location: Plant Wansley Rig type: CME 550 Elevation: **GS-10** Drilling method: HSA/HQ Logger: Sampling methods: SPT & Core Dates drilled: 10/21/06 No. SPT: No. UD: Total depth: 51.8 DEPTH ELEV. 764.2 TOP OF CASING -2.8 0.0 761.4 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TOP OF FILTER PACK 26.0 735.4 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 733.7 27.7 SCREEN TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 37.7 723.7 BOTTOM OF SCREEN BOTTOM OF CASING 38.0 725. BOTTOM OF HOLE 709.6 51.8 HOLE DIA. 4" 3/24/2017 1:16:28 PM Uncontrolled Copy

Southern Company Generation

Page 1 of 1 Well Name Drilling Co: SCS Project: Gypsum Storage Facility on: Plant Wansley Driller: S. Milam evation: Rig type: CME 550 **GS-11** Drilling method: HSA Logger: G. McWhorter Sampling methods: SPT Dates drilled: 10/20/06 No. SPT: 13 No UD: Total depth: 60.5' **DEPTH** ELEV. -2.7 776.6 TOP OF CASING 0.0 773.9 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 45.5 728.4 TOP OF SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 48.0 725.9 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 50.5 723.4 SCREEN TYPE: Schedule 40 PVC Pre-Pack DIA: 2" **OPENINGS WIDTH: 0.01"** OPENING TYPE: Slotted BOTTOM OF SCREEN 60.5 713.4 60.5 713.4 BOTTOM OF CASING 60.5 713.4 BOTTOM OF HOLE HOLE DIA. 8" 3/24/2017 1:16:28 PM Uncontrolled Copy

Southern Company Generation

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Page 1 of 1 Well Nan Drilling Co: SCS Project: Gypsum Storage Facility Location: Plant Wansley Driller: S. Milam Rig type: CME 550 GS-12 Elevation: Drilling method: HSA Logger: G. McWhorter Sampling methods: SPT Dates drilled: 10/19/06 Total depth: 81.0' No. SPT: 17 No. UD: DEPTH ELEV. 775.7 TOP OF CASING -2.5 GROUND SURFACE 0.0 773.2 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 707.7 TOP OF SEAL 65.5 ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 68.0 705.2 FILTER PACK TYPE: #2 Filter Sand 703.7 BOTTOM OF RISER/TOP OF SCREEN 69.5 SCREEN TYPE: Schedule 40 PVC Pre-Pack DIA: 2" OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted 693.7 BOTTOM OF SCREEN 79.5 BOTTOM OF CASING 79.5 693.7 BOTTOM OF HOLE 81.0 692.2 Uncontrolled Copy 3/24/20 7/1 816:28 PM

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Drilling Co: SCS Page 1 of 1 Well Name t: Gypsum Storage Facility Driller: M. Hughes on: Plant Wansley Rig type: CME 550 Lievation: GS-13 Drilling method: HSA/HQ Core Logger: R. Mudd Sampling methods: SPT & Core Dates drilled: 10/10/06 Total depth: 37.5' No. SPT: No. UD: DEPTH ELEV. TOP OF CASING -3.4 784.0 GROUND SURFACE 0.0 780.6 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets 772.6 TOP OF FILTER PACK 8.0 FILTER PACK TYPE: #2 Filter Sand, 2.5 bags BOTTOM OF RISER/TOP OF SCREEN 768.1 12.5 SCREEN TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 758.1 22.5 743.1 BOTTOM OF CASING 37.5 BOTTOM OF HOLE 37.5 743.1 Uncontrolled Copy

Southern Company Generation

Page 1 of 1 Well Nar Drilling Co: SCS Project: Gypsum Storage Facility Driller: S. Milam Location: Plant Wansley Rig type: CME 550 **GS-14** Elevation: Drilling method: HSA/HQ Core Logger: G. McWhorter Sampling methods: SPT Dates drilled: 10/19/06 Total depth: 45.5' No. SP1: 2 No. UD: DEPTH ELEV. 740.8 TOP OF CASING -3.1 737.7 GROUND SURFACE 0.0 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 722.2 TOP OF SEAL 15.5 ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 18.0 719.2 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 717.2 20.5 SCREEN TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 707.2 BOTTOM OF SCREEN 30.5 BOTTOM OF CASING 45.5 692.2 BOTTOM OF HOLE 45.5 692.2 Uncontrolled Copy 3/24/2017 1:16:28 PM

Southern Company Generation

Project: Gypsum Storage Facility Drilling Co: SCS Page 1 of 1 Well Name Driller: B. Filipovich ion: Plant Wansley Rig type: CME 550 revation: GS-15 Drilling method: HSA/HQ Core Logger: Sampling methods: SPT & Core Dates drilled: 10/20/06 No. SPT: No. UD: Total depth: 41.3' DEPTH ELEV. -2.9 722.6 TOP OF CASING 0.0 719.7 GROUND SURFACE **BACKFILL MATERIAL** TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL TYPE: 1/4 " Bentonite Pellets 18.0 701.7 FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 20.0 699.7 SCREEN TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 30.0 BOTTOM OF SCREEN 689.7 30.0 689.7 BOTTOM OF CASING BOTTOM OF HOLE 41.3 678.4 - HOLE DIA. 4" Uncontrolled Copy 3/24/2017 1:16:28 PM

Southern Company Generation

Page 1 of 1 Well Nar Drilling Co: SCS Project: Gypsum Storage Facility Driller: M. Hughes Location: Plant Wansley Rig type: CME 550 **GS-16** Elevation: Drilling method: HSA/HQ Logger: Sampling methods: SPT & Core Dates drilled: No. SPT: No. UD: Total depth: 40.0' DEPTH ELEV. TOP OF CASING -2.6 713.1 0.0 710.5 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 24.2 686.3 TOP OF SEAL ANNULAR SEAL TYPE: 1/4" Bentonite Pellets 26.7 683.8 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand 30.0 680.5 BOTTOM OF RISER/TOP OF SCREEN SCREEN TYPE: Schedule 40 PVC DIA: 2" OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted BOTTOM OF SCREEN 40.0 670.5 670.5 BOTTOM OF CASING 40.0 BOTTOM OF HOLE 40.0 670.5 HOLE DIA 4" 3/24/2017 1:16:28 PM Uncontrolled Copy

Southern Company Generation

Page 1 of 1

Project: Gypsum Storage Facility ion: Plant Wansley

evation:

Drilling Co: SCS

Driller: B. Filipovich Rig type: CME 550

Well Name

Logger: L. Millet/R. Mudd		Drilling method: HSA to 30)', Rock core to 50.4'		GS-17
Dates drilled: 10/5/06 to 10/9/06	· · · · · · · · · · · · · · · · · · ·	Sampling methods: No. SPT: No.	UD: Total depth: 50	0.4'	
and the second s	Mark 1	TERMI A SE	** ** ** ** ** ** ** ** ** ** ** ** **	DEPTH	ELEV.
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		8 9	.81		
	E .		TOP OF CASING	-2.7	758.8
	П	THE STATE OF THE S	TOT OF CASING		130.0
			GROUND SURFACE	0.0	<u>756.1</u>
the state of the s			1		MARIO E CO
			g 8 5		
	88			3 40	
		— BACKFILL MATERIAL			
		TYPE: Bentonite Chips	* * a	140	
H N		a L many e			
		RISER CASING			g Fage
The second of th		DIA: 2"	10	*	
		TYPE: PVC	2. = %	316.V	18. H
			1	Ž.	
					J80 =
					40 11
			TOP OF SEAL_		<u> </u>
		ANNULAR SEAL TYPE: Bentonite Pellets		(i) V	a constant
	88	250	TOP OF FILTER PACK	38.8	717.3
		— FILTER PACK	24		
, g. 4 - 1 Te - 1 - 1		TYPE: #2 Filter Sand, 1.5 bags		g 19	
		5	20 N		
			OFFICE A OF PAGE MODE OF CORPUS	40.4	2157
	<u> </u>	<u>B</u>	OTTOM OF RISER/TOP OF SCREEN	_40.4 _	715.7
			88	*	
		DIA: 2* TYPE: Schedule 40 PV	vc .		25 ES
		OPENINGS WIDTH: 0.01"	# E 0		
* * * * * * * * * * * * * * * * * * *	<u></u>	OPENING TYPE: Slotted	E grant many many like	11 11	The Contraction
and the state of t	<u></u>		BOTTOM OF SCREEN	_50.4 _	705.7
			. a	W	
			BOTTOM OF CASING	50.4	705.7
			BOTTOM OF HOLE	50.4	705.7
			-		
Uncontrol	led Copy 3		ON/I		

Southern Company Generation

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Drilling Co: SCS Page 1 of 1 Well Na Project: Gypsum Storage Facility Driller: B. Filipovich Location: Plant Wansley Rig type: CME 550 Elevation: **GS-18** Drilling method: HSA to 7.4', Rock core to 32.5' Logger: Sampling methods: Dates drilled: No. SPT: No. UD. Total depth. 32.5 DEPTH ELEV. TOP OF CASING -1.9 733.5 GROUND SURFACE 0.0 731.6 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets 725.4 TOP OF FILTER PACK 6.2 TYPE: #2 Filter Sand, 3 bags BOTTOM OF RISER/TOP OF SCREEN 724.1 7.5 SCREEN DIA: 2" TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 17.5 714.1 BOTTOM OF CASING 699.1 32.5 BOTTOM OF HOLE 32.5 699.1 Uncontrolled Copy 3/24/2017 1:16:28 PM

Southern Company Generation

Project: Gypsum Storage Facility Drilling Co: SCS Page 1 of 1 Well Name Driller: B. Filipovich tion: Plant Wansley revation: Rig type: CME 550 GS-19 Logger: A. Grissom Drilling method: HSA Dates drilled: 9/27/2006 Sampling methods: No. SPT: No. UD: Total denth: 39.2' DEPTH ELEV. 752.9 TOP OF CASING -2.9 GROUND SURFACE 0.0 750.0 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL TYPE: Bentonite Pellets TOP OF FILTER PACK 13.2 736.8 FILTER PACK TYPE: #2 Filter Sand, 3 bags BOTTOM OF RISER/TOP OF SCREEN 14.2 735.8 SCREEN TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 24.2 725.8 BOTTOM OF CASING 39.2 710.8 BOTTOM OF HOLE 39.2 710.8 - HOLE DIA. 4" Uncontrolled Copy

Southern Company Generation

Project: Gypsum Storage Facility Location: Plant Wansley Elevation: Logger: L. Millet Dates drilled: 10/4/06		Drilling Co: SCS Driller: Rig type: CME 550 Drilling method: HSA/HQ Sampling methods: SPT & Core No. SPT: No. UD:	Page 1 of Total depth: 43		11 Na 3S-20
	N AM	2	2	DEPTH	ELEV.
855 # 45	# # # # # # # # # # # # # # # # # # #	å	a e	2	S =
		3	n 22 1	#3	
	(A) (2)	*s: *1	TOP OF CASING		716.6
			GROUND SURFACE	0.0	713.8
2 32			GROUND SURFACE		713.6
	88		3 #		
			10	×	
		- 145	88 Flor		n a
		— BACKFILL MATERIAL			
		TYPE: Bentonite Chips			. ,
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200		RISER CASING			
# # # # # # # # # # # # # # # # # # #		DIA: 2"	5 m		
		TYPE: PVC	25		
7				-18	
* 11 1			11 (0 %)		
			+2 - 1		
			TOP OF SEAL	24.0	689.8
		ANNULAR SEAL TYPE: 1/4" Bentonite Pellets	×	W	
	B B -		TOP OF FILTER PACK	26.0	687.8
		PH TER BACK	,		
g e e e		FILTER PACK TYPE: #2 Filter Sand			25°U =
			*		
	***	POTTOM (OF RISER/TOP OF SCREEN	28.5	685.3
	<u> </u>		NI RIBERTOT OF SCREEN		1 003.5
		CONTENT	Ì		
		DIA: 2" TYPE: Schedule 40 PVC Pre-Pa	ck		
20 E E E E	<u> </u>	OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted	sa ^W		
1 4 4 A		OFERING 1 IFE, SIGUED	BOTTOM OF SCREEN	38.5	675.3
			BOTTOM OF SCREEN		013.3
			BOTTOM OF CASING	43.5	670.5
	<u> </u>		BOTTOM OF CASING	43.5	670.3
			BOTTOM OF HOLE	43.3	1 070.5

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ct: Gypsum Storage Facility Drilling Co: SCS Page 1 of 1 Well Name on: Plant Wansley Driller: Levation: Rig type: CME 550 **GS-21** Drilling method: HSA/HQ Logger: L. Millet Sampling methods: SPT & Core Dates drilled: 10/3/06 No. SPT: No. UD: Total depth: 72.5' **DEPTH** ELEV. -2.7_ 792.1 TOP OF CASING 0.0 789.4 GROUND SURFACE **BACKFILL MATERIAL** TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 53.0 736.4 TOP OF SEAL ANNULAR SEAL TYPE: 1/4" Bentonite Pellets TOP OF FILTER PACK 55.0 734.4 FILTER PACK TYPE: #2 Filter Sand 731.9 BOTTOM OF RISER/TOP OF SCREEN 57.5 TYPE: Schedule 40 PVC **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 721.9 BOTTOM OF SCREEN 67.5 721.9 BOTTOM OF CASING 67.5 BOTTOM OF HOLE 72.5 716.9 Uncontrolled Copy

Southern Company Generation

Drilling Co: SCS Page 1 of 1 Well Nam Project: Gypsum Storage Facility Location: Plant Wansley Driller: Elevation: Rig type: CME 550 **GS-22** Drilling method: HSA/HQ Logger: L. Millet' Sampling methods: SPT & Core Dates drilled: 10/4/06 No. 371: Total depth: 72.0 No. UD: DEPTH ELEV. 732.7 TOP OF CASING -3.4 729.3 0.0 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 53.0 676.3 TOP OF SEAL ANNULAR SEAL TYPE: 1/4" Bentonite Pellets 55.0 674.3 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 57.0 672.3 TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 67.0 662.3 BOTTOM OF SCREEN BOTTOM OF CASING 72.0 657. BOTTOM OF HOLE 72.0 657.3 Uncontrolled Copy

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Project: Gypsum Storage Facility on: Plant Wansley

Drilling Co: SCS Driller:

Rig type: CME 550

Page 1 of 1

Well Name

GS-23

BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC	TOP OF CASING GROUND SURFACE		ELEV. 700.7 _ 697.9 _
TYPE: Bentonite Chips RISER CASING DIA: 2"	€		
TYPE: Bentonite Chips RISER CASING DIA: 2"	€		
TYPE: Bentonite Chips RISER CASING DIA: 2"	€		
TYPE: Bentonite Chips RISER CASING DIA: 2"	€		
TYPE: Bentonite Chips RISER CASING DIA: 2"	GROUND SURFACE	0.0	<u>697.9</u>
TYPE: Bentonite Chips RISER CASING DIA: 2"			
TYPE: Bentonite Chips RISER CASING DIA: 2"			
TYPE: Bentonite Chips RISER CASING DIA: 2"			
TYPE: Bentonite Chips RISER CASING DIA: 2"			
TYPE: Bentonite Chips RISER CASING DIA: 2"		2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
TYPE: Bentonite Chips RISER CASING DIA: 2"		2 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
TYPE: Bentonite Chips RISER CASING DIA: 2"		2 2 2 0	
DIA: 2"			
DIA: 2"	<u> </u>	8 2 0	
DIA: 2"	± a gr µ	8 7 6	
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TIPE.FVC	and the same of th		
	10		
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	= 12		
		*	
		22	Na en
	TOP OF SEAL	26.0	671.9
ANNULAR SEAL	_	a 6 8	
TYPE: 1/4" Bentonite Pellets	TOP OF FILTER PACK	28.0	669.9
FILTER PACK		1 5	
TYPE: #2 Filter Sand			
	51 16		
	OM OF RISER/TOP OF SCREEN	30.0	667.9
вотто		170-1817 - 1910 - 1710 - 1	
BOTT(8	
#\$7 =			
SCREEN	_	H 4 9	
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr	_		ts
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	_	1 / 1	(57.0
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack	40.0	657.9
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack	40.0	657.9
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack BOTTOM OF SCREEN		
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack		657.9
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack BOTTOM OF SCREEN	40.0	
SCREEN DIA: 2" TYPE: Schedule 40 PVC Pr DPENINGS WIDTH: 0.01"	Pre-Pack BOTTOM OF SCREEN BOTTOM OF CASING	40.0	657.9
(- SCREEN		BOTTOM OF SCREEN 40.0

Southern Company Generation

Project: Gypsum Storage Facility Drilling Co: SCS Page 1 of 1 Well Nam Driller: B. Filipovich Location: Plant Wansley Rig type: CME 550 Elevation: **GS-24** Drilling method: HSA Logger: R. Mudd Sampling methods: Dates drilled: 10/5/2006 No. SPT: No. UD: Total depth: 65.5 DEPTH ELEV. 728.2 TOP OF CASING -3.2 0.0 725.0 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 51.0 674.0 TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets TOP OF FILTER PACK 53.5 671.5 FILTER PACK TYPE: #2 Filter Sand, 3 bags BOTTOM OF RISER/TOP OF SCREEN 669.5 55.5 SCREEN TYPE: Schedule 40 PVC Pre-Pack DIA: 2" OPENINGS WIDTH: 0.01" **OPENING TYPE: Slotted** BOTTOM OF SCREEN 65.5 659.5 BOTTOM OF CASING 65.5 659. BOTTOM OF HOLE 65.5 659.5 - HOLE DIA. 8"

Southern Company Generation

Princt: Gypsum Storage Facility on: Plant Wansley Lievation: Logger: A. Grissom Dates drilled: 9/26/2006 to 9/27/2006		Drilling Co: SCS Driller: B. Filipovich Rig type: CME 550 Drilling method: HSA Sampling methods:	Page 1 of 1	G	1 Name S-25
		No. SPT: No. UD:	Total depth: 43.	7'.	
	5	1000 100 100 100 100 100 100 100 100 10	AR RA	DEPTH	ELEV.
		1)1=1 e		
	- · ·		TOP OF CASING		788.5
e e			GROUND SURFACE	0.0	785.7
			5 W O 01	*	5 8 7
		BACKFILL MATERIAL TYPE: Bentonite Chips	a ²)	*	
		DIA: 2" TYPE: PVC		* 15	
			TOP OF SEAL		
		ANNULAR SEAL TYPE: Bentonite Pellets	TOP OF FILTER PACK	32.0	753.7
		FILTER PACK TYPE: #2 Filter Sand, 2 bags			
		воттом	OF RISER/TOP OF SCREEN	33.7	752.0
		SCREEN			
		DIA: 2" TYPE: Schedule 40 PVC OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted	2 1	54 9#	
			BOTTOM OF SCREEN	<u>43.7</u> _	742.0
			BOTTOM OF CASING	4 <u>3.7</u>	742.0
The state of the s			BOTTOM OF HOLE	_43.7 _	742.0
Uncontrolled	Copy 3	— HOLE DIA. 4" 1/24/2017 1:16:28 PM	· · · · · · · · · · · · · · · · · · ·		

Southern Company Generation

Drilling Co: SCS Project: Gypsum Storage Facility Location: Plant Wansley Driller: Rig type: CME 550 Elevation:

Page 1 of 1

GS-26

Well Na

ogger: L. Millet Dates drilled: 10/2/06			Drilling method: HSA/HQ Sampling methods: SPT &			
			No. SPT: No.	UD: Total depth: 60		
G \$ 50			- g H		DEPTH	ELEV.
				28 10 10	10.	
N2W			N 8 11 E	98		75 70
			* 6.			
	2 11 2 2		T T T	TOP OF CASING	3.4	748.1
				GROUND SURFACE		744.7
			8			
		88		× ×		7-
				IA Ist	38 38	
96 51 25	80 j.		20 E	a (8 °		
				the t		
8 1	12 2	9	BACKFILL MATERIAL	2 2 20	190	
	N N N N N N N N N N N N N N N N N N N		TYPE: Bentonite Chips		10 IN	
			S S	23		425
			RISER CASING	8		-
20 AS			DIA: 2"	::::::::::::::::::::::::::::::::::::::		
39	a a a a	99	TYPE: PVC	** # 2		
ŝ		88			al.	8
				18		
			NATION AND ST			
						39
		12 12		. N	1771 1875	
	A			TOP OF SEAL	_41.0 _	703.7
			ANNULAR SEAL TYPE: 1/4" Bentonite Pellets	10 M	-	
			TYPE: 1/4" Bentonite Pellets	TOP OF FILTER PACK	43.0	701.7
n					*	
	2 P		FILTER PACK			
			TYPE: #2 Filter Sand			
ts ==		***		9.		1
	n the			OTTOM OF RISER/TOP OF SCREEN	45.0	600.7
	800			OTTOM OF RISERTOF OF SCREEN	<u>-45.0</u> _	699.7
	7 8	· 🚟 🚟				
	a ije		SCREEN			
			DIA: 2" TYPE: Schedule 40 P OPENINGS WIDTH: 0.01"	VC.		
(E)	(A) E	∞ ≡	OPENING TYPE: Slotted			
			11	BOTTOM OF SCREEN	55.0	689.7
					-33.0	1007.7
					15 15 <u>1</u> 22015	
				BOTTOM OF CASING		684.7
				BOTTOM OF HOLE	60.0	684.7
	9		HOLF DIA 4" 3/24/2017 1:16:28 F		* 0	

Southern Company Generation

Page 1 of 1 Project: Gypsum Storage Facility Drilling Co: SCS Well Name on: Plant Wansley Driller: Rig type: CME 550 evation: **GS-27** Drilling method: HSA/HQ Logger: L. Millet Sampling methods: SPT & Core Dates drilled: 10/3/06 Total depth: 40.0' No. SPT: No. UD: DEPTH ELEV. -3.0 702.7 TOP OF CASING 0.0 699.7 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC 21.0 678.7 TYPE: 1/4" Bentonite Pellets 23.0 676.7 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand BOTTOM OF RISER/TOP OF SCREEN 25.0 674.7 TYPE: Schedule 40 PVC Pre-Pack DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** 35.0 664.7 BOTTOM OF SCREEN BOTTOM OF CASING 40.0 659.7 BOTTOM OF HOLE 40.0 659.7 - HOLE DIA. 8" Uncontrolled Copy

Southern Company Generation

Project: Gypsum Storage Facility

Location: Plant Wansley

Elevation:

Logger: S. Bearce

Drilling Co: SCS

Driller: B. Filipovich

Rig type: CME 550 Drilling method: HSA Page 1 of 1

Well Nar

GS-28

Sampling methods: Dates drilled: 9/12/2006 Total depth: 64.0 No. SPT: No. UD: DEPTH ELEV. 816.4 -3.0TOP OF CASING 0.0 813.4 GROUND SURFACE BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets 52.2 761.2 TOP OF FILTER PACK FILTER PACK TYPE: #2 Filter Sand, 2 bags BOTTOM OF RISER/TOP OF SCREEN 54.0 759.4 SCREEN TYPE: Schedule 40 PVC DIA: 2" **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 749.4 64.0 BOTTOM OF CASING 64.0 749. BOTTOM OF HOLE 64.0 749.4 3/24/2017 1:16:28 PM Uncontrolled Copy

Southern Company Generation

Page 1 of 1 Drilling Co: SCS Well Name Project: Gypsum Storage Facility Driller: B. Filipovich ion: Plant Wansley Rig type: CME 550 vation: **GS-29** Drilling method: HSA Logger: S. Bearce Dates drilled: 9/14/2006 Sampling methods: No. SPT: No. UD: Total depth: 49.0' DEPTH ELEV. 749.7 TOP OF CASING -3.0 GROUND SURFACE 0.0 746.7 BACKFILL MATERIAL TYPE: Bentonite Chips RISER CASING DIA: 2" TYPE: PVC TOP OF SEAL ANNULAR SEAL TYPE: Bentonite Pellets TOP OF FILTER PACK 37.4 709.3 FILTER PACK TYPE: #2 Filter Sand, 7 bags BOTTOM OF RISER/TOP OF SCREEN 39.0 707.7 TYPE: Schedule 40 PVC Pre-Pack **OPENINGS WIDTH: 0.01" OPENING TYPE: Slotted** BOTTOM OF SCREEN 49.0 697.7 BOTTOM OF CASING 49.0 697.7 BOTTOM OF HOLE 49.0 697.7 - HOLE DIA. 8" 3/24/2017 1:16:28 PM

Southern Company Generation

Project: Gypsum Storage Facility Location: Plant Wansley Elevation: Logger: R. Mudd Dates drilled: 9/19/2006		Drilling Co: SCS Driller: B. Filipovich Rig type: CME 550 Drilling method: HSA Sampling methods: No. SPT: No. UD:	Page 1 of 1 Total depth: 56.5	(ll Na SS-30
	11	3 4		DEPTH	ELEV.
			n -	*	
W 3					£3
		2. B	TOP OF CASPIC	20	717.5
	Γ	7	TOP OF CASING	<u>-2.9</u>	<u>71</u> 7 <u>.5</u>
	F 11 921 _ 6		GROUND SURFACE	0.0	714.6
**************************************					20
			*		
			2 20		191
¥ = 1		BACKFILL MATERIAL	0.00	13	iii gyst
		TYPE: Bentonite Chips	- 1	S. II	1 9
W 150					31
		RISER CASING	в г		
		DIA: 2"			0
		TYPE: PVC			
				1-	
2 4					
E .					
g H am D					9
		2	TOP OF SEAL		L
		ANNULAR SEAL TYPE: Bentonite Pellets	<u></u> =		
To del que tem de		TYPE: Bentonite Pellets	TOP OF FILTER PACK	33.5	681.1
	****	FILTER PACK TYPE: #2 Filter Sand, 7.5 bags	- 2 -		
		1 1 PE: #2 Piller Sand, 7.3 bags	5 g iii g		
	••••		(i)		
		BOTTO	OM OF RISER/TOP OF SCREEN	_34.5 _	680.1
	-		# P	NI .	1
8		SCREEN	_		
S		DIA: 2" TYPE: Schedule 40 PVC P	re-Pack		¥3
a s		OPENING TYPE: Slotted	12 N		
e vo en Entre	7	=	BOTTOM OF SCREEN	44.5	670.1
	*****	e Artisen		ili e	
			BOTTOM OF CASING	44.5	670
			BOTTOM OF HOLE	56.5	658.1
	-1				
		HOLE DIA. 8" Copy 3/24/2017 1:16:28 PM	× 1		

Southern Company Generation

Project: Gypsum Storage Facility on: Plant Wansley Lievation:

Logger: T. Hartsfield

Drilling Co: SCS Driller: S. Milam

Rig type: CME 550 Drilling method: HSA/HQ Core

Page 1 of 1

Well Name

GS-31

Dates drilled: 10/21/06	Sampling methods: SP No. SPT: 6			
		9 W = 19 20	DEPTH	ELEV.
		a	11	
		1 N	-	
e	* * * * * * * * * * * * * * * * * * *	TOP OF CASING	-2.9	846.4
	1	GROUND SURFACE	0.0_	843.5
		e a a	-14	7
				8
		.90		
e e e e e		10		
2 P	BACKFILL MATERIAL TYPE: Bentonite Chips		* -1	
	1112. Bellionite Citips		0.5	
	RISER CASING DIA: 2"			
	TYPE: PVC	4 2 11	1	26
		* 1		
			12	
B was a supplemental to the same of the sa		TOP OF SEAL	15.0	828.5
	ANNULAR SEAL TYPE: 1/4" Bentonite Pelle		15	
	117E: 1/4 Beniomie Pelic	TOP OF FILTER PACK	18.5	825.0
	FILTER PACK TYPE: #2 Filter Sand, 6 bag	25		
		7		
		BOTTOM OF RISER/TOP OF SCREEN	20.5	922 A
E W 10 M		BOTTOM OF RISERVIOR OF SCREEN		823.0
			6.8.3	
	SCREEN DIA: 2" TYPE: Schedul	e 40 PVC		
	OPENINGS WIDTH: 0.01"	: i		
a the second way	OPENING TYPE: Slotted	BOTTOM OF SCREEN	30.5	813.0
y x a		BOTTOW OF BUREN	_30.3	013.0
		BOTTOM OF CASING	30.5	813.0
		BOTTOM OF HOLE	-30.5 — 43.5	800.0
	HOLE DIA. 4" ed Copy 3/24/2017 1:16:2		#1	
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LOG OF TEST BORING

	-	CHIPAIN				
SO	UTHER	N COMPANY SERVICES, INC.				
EA	RIHSC	ENCE AND ENVIRONMENTAL ENGINEERING	LOCATION Carr	ollton, G	eorgia	
				VICE-POL 1922		
		FED <u>3/3/2011</u> COMPLETED <u>3/3/2011</u> SURF				
000000000000000000000000000000000000000		DR Boart Longyear EQUIPMENT				
		LOGGED BY C. Sellers				
		PTH 46.7 ft. GROUND WATER DEPTH: DURING			DELAYED	
NOTE	S _We	ell installed. Refer to well data sheet.		-		
			· · · · · · · · · · · · · · · · · · ·	7		
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		Weak Moderate HEACTION Strong	COM	MMENTS
LOGS.GPJ		Clayey Sand (SC) - red (10R 4/8) damp, trace gravel				
MPLANT WANSLEY WELL 0	70	(PWR) - very pale brown / very pale orange (10YR 8/2) saprol	ite micaceous			
7. AMANSLEY 201	0.00 V V V V V V V V V V V V V V V V V V	- PWR: pale red purple (5RP 6/2) saprolite damp - PWR: reddish brown / moderate brown (5YR 4/4) sap	prolite micaceous			
OJECTS/WANSLE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- PWR: brown (10YR 5/3) saprolite wet, micaceous				
25 25 25 25 25 25 25 25 25 25 25 25 25 2	0.00.0 0.00.0 0.00.0 0.00.0	- PWR: very dark grayish brown (10YR 3/2) saprolite	wet, micaceous			
20 25 300 10 10 15 15 10 10 10 10 10 10 10 10 10 10 10 10 10	000 000 000 000 000 000 000 000 000 00	- PWR: very pale brown / very pale orange (10YR 8/2) micaceous	saprolite wet,			
		Bottom of borehole at 46.7 feet.				1900 Maria - 1900 Maria - 1900 Maria - 1900 Maria - 1900 Maria - 1900 Maria - 1900 Maria - 1900 Maria - 1900 M Maria - 1900 Maria -
 50						





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEYWANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

LOG OF TEST BORING

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SOL	JTHER	N COMPANY SERVICES, INC.	PROJECT Plant	Wansley		
EAF	RTH SC		LOCATION Carr	ollton, Geor		
		TED <u>3/3/2011</u> COMPLETED <u>3/3/2011</u> SURF.				
		OR Boart Longyear EQUIPMENT				
		LOGGED BY C. Sellers C				
		PTH _57 ft GROUND WATER DEPTH: DURING _		P	DELAYED	
NOTE	S We	ell installed. Refer to well data sheet.			Hearth I was a second	
				Z		
_	ಲ			REACTION		
DEPTH (ft)	PH OG	MATERIAL DESCRIPTION		EACH	COMM	MENTS
DE	GR/			ate		
				Weak Moderate Strong		
	77-74-7 13-14-1	Silty Sand (SM) - light red / moderate reddish orange (10R 6/6) trace gra	nuol .			
•••••	0.0.0	(PWR)	Ivei	1		
	4.00.0	- reddish brown / moderate brown (5YR 4/4) saprolite m	icaceous			
	AV ₄ ∀ c					
	D 74.7					
10	40.0.4	- PWR: red (10R 4/8) saprolite wet				
	□ ₀ ∨ .					
	A . O . O	- PWR: brown (10YR 5/3) saprolite damp, micaceous				
	0.4.4.4	The storm (10111 o/o) caprelled damp, meacocae				
	4040					
20	0.0.0					
	4.0.0					
	0.04.A 0.00.					
	4040					
	40.0:4	- black (10YR 2/1) wet, (drilled without water)	E93 is	1		
30						
	1//					
			,			
40		- black (10YR 2/1) wet, (drilled without water)				
		- Red Staining (drilled with water)				
F0	1//					
50	///					
		_ N	F2			
		¬ - No red staining Bottom of borehole at 57.0 feet. Bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of bottom of				





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MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY

- 11/9/11 15:48 - T:\ESEE

ESEE DATABASE.GDT

GEOTECH ENGINEERING LOGS -

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LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 3/3/2011 COMPLETED 3/3/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD DRILLED BY _____LOGGED BY _C. Sellers ____ CHECKED BY ____ ANGLE ____ BEARING ___ BORING DEPTH 27 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED ___ NOTES SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Lean Clay (CL) - red, wet, w/ trace organics Sandy Lean Clay (SP-SC) - yellow to orange Partially Weathered Rock - red, clayey saprolite 10 - red, clayey saprolite; wet 15 - gray to brown, saprolite; wet Quartzite - tan, vein, dry Schist - brown, grey, red, wet Bottom of borehole at 27.0 feet.





LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING PROJECT Plant Wansley LOCATION Carrollton, Georgia

DATE STARTED 2/11/2011 COMPLETED 2/11/2011 SURF. ELEV. Not Surveyed COORDINATES:

DRILL	FD BA _	LOGGED BY G. Dyer CHE	CKED BY			ANG	LE BEARING
BORII	NG DEPT	H 34 ft. GROUND WATER DEPTH: DURING 33 ft	t	COMP.		DELA	AYED
NOTE	s						
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS
		Silty Sand (SM) - damp, sediments are very micaceous	- Alinean		, T		
5		Sandy Lean Clay (SP-SC) - orange, moist, low plasticity					5/
10		Clayey Sand (SC) - orange to tan, damp, w/ small pieces of highly weathered schist (white) - tan, damp, w/ more prevalent pieces of weathered					
		- orange, damp, micaceous, no pieces of schist		-			2
15		Silty Clay (CL-ML) - orange, brown, and gray, damp to wet, medium plasticity, w/ depth, pieces of competent quartz included in core sample					
20	X Y	Partially Weathered Rock - orange, tan, saprolite; saprolite is derived from schist and has weathered to silt and sand, micaceous, moisture content changes with depth (damp to dry)					â
	X	- tan, saprolite; fewer sands and saprolite is more competent, dry					3
25	+ ×.	- mottled tan, light brown, grey, highly weathered, saprolite					
		Silty Clay (CL-ML) - light brown, damp, low plasticity					
30		Clayey Sand (SC) - tan, very moist, prevalent gravel size pieces of weathered schist/gneiss					
	Ā	Gneiss - mottled tan, orange, highly weathered, geniss is weathering to a lightly clayey sand sediment, some pieces of gneiss are very competent					





WANSLEY

2011/PLANT

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MAJOR PROJECTS/PROJECTS/WANSLEY/WANSL

- 11/9/11 15:48 - T:\ESEE

ESEE DATABASE.GDT

ENGINEERING LOGS .

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LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/10/2011 COMPLETED 2/10/2011 SURF. ELEV. Not Surveyed COORDINATES: EQUIPMENT _____ METHOD Rotosonic CONTRACTOR LOGGED BY G. Dyer CHECKED BY ANGLE BEARING DRILLED BY BORING DEPTH 38 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED ___ NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS - orange to tan, dry, w/ angular pieces of partially weathered schist, trace organics - Schist: dark grey, weathered schist/gneiss, high percentage of grey silt and sand, dry 10 ١ Partially Weathered Rock - tan, grey, brown, saprolite; grain size is predominantly gravel w/ smaller amounts of sand and silt, dry Silty Clay (CL-ML) - orange, wet, w/ gravel size angular gneissic rock Partially Weathered Rock - tan to brown, saprolite; mostly gravel to boulder szied weathered schist w/ some geniss, damp Clayey Gravel (GC) - brown, grey, wet, gravel is composed of consolidated gneissic fragments 20 missing section. Gneiss - dark grey, partially weathered with clay to sand, dry Partially Weathered Rock - orange to tan, saprolite; highly weathered geniss, damp - grey, consolidated, foliations and structure intact covered with water. Bottom of borehole at 38.0 feet.





GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

LOG OF TEST BORING

	_						
		COMM AITT CETTIOES, INC.					
DATE	START	ED <u>2/10/2011</u> COMPLETED <u>2/10/2011</u> SURF. EL	EV. Not	Surveye	d COORDIN	ATES:	
		R Boart Longyear EQUIPMENT					
		LOGGED BY G. Dyer CHE					
BORII	NG DEP	TH _28 ft. GROUND WATER DEPTH: DURING _21 ft	ft.	COMP.		DEL	AYED 17.7 ft. after 2 hrs.
		Il installed. Refer to well data sheet.				78	
						T	
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS
		Sandy Lean Clay (SP-SC) - orange, wet, medium plasticity, slighty sandy					
5	× ,	Partially Weathered Rock - orange to tan, saprolite; mostly gravel, but some is weathered to silt and sand, sediments consist of highly micaceous schist, coarsening downward, poorly sorted, moist					
	2	(SM)					
10	1-	- orange, dry, pieces of more consistent schist					
	1	- tan, w/ some clay and large angular pieces of geniss present					8
	000	Poorly-graded Sandy Gravel (GP)					
	0.00	 mottled tan to brown, dry, sandy gravel; w/ some muds, gravel is angular and derived from gneiss 					
	.0.c	light tan, dry, sandy gravel; gravel is smaller and more elongate (gneissic parent)					
		- dark grey, dry, sandy gravel (saprolitic); w/ some silts and sands (gneissic parent rock)					
	× ā	- white to orange, saprolite; sandy gravel with higher					
	~]	percentage of silt, damp - tan to brown, highly weathered, saprolite; moist					
20	× -						
	\\\\Z	- orange to tan, saprolite; high gravel content with sandy clay matrix, gravel is very large and angular, wet					
	x	, , , , , , , , , , , , , , , , , , ,					
25		Gneiss - grey, partially weathered gneiss with fine mud matrix, grading down to more unweathered grey gneiss, damp					23' to 28' water was used for drilling.
		- grey, consolidated, foliations and structures intact, large angular quartz fragments				2.4	
	/ / '	Bottom of borehole at 28.0 feet.			- W		





GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTSIPROJECTSIWANSLEYIWANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

LOG OF TEST BORING

COMPANY							
SOL	JTHERN	COMPART SERVICES, INC.	OJECT	A CY OFFI			
EAF	ATH SCI	ENCE AND ENVIRONMENTAL ENGINEERING LO	CATION	Carroll	ton, Georgia		
DATE	START	ED COMPLETED SURF. EL	EV. Not	Surveye	ed COORDIN	ATES:	
CONT	RACTO	PR EQUIPMENT	ME	THOD _			
DRILL	ED BY	LOGGED BY CHE	CKED BY		1875 HERECO	ANG	LE BEARING
BORII	NG DEP	TH 23 ft. GROUND WATER DEPTH: DURING 12 ft	t	COMP.		DEL	AYED 12.2 ft. after 24 hrs.
NOTE	S We	Il installed. Refer to well data sheet.					
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS
5	x x x + x x x x x x x x x x x x x x x x	Partially Weathered Rock - brown to tan, orange, saprolite/regolith, fine silt to sand matrix w/ partially schist clasts. Clasts are angular and partially oxidized, grey zonations are present at 3' and 6', dry. Orange saprolite weatheres to sands, gravel, and silt - finer than 0-7'. Gneiss - light grey, partially weathered gneiss and schist, mainly sand and silt sized matrix					
15		- grey, consolidated, foliations and structure intact Bottom of borehole at 23.0 feet.					no sample.
		Bottom of borehole at 23.0 feet.					





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ENGINEERING LOGS - ESEE DATABASE,GDT - 11/9/11 15:48 - TYESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSL

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/22/2011 COMPLETED 2/22/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY ____LOGGED BY _G. Dyer ___ CHECKED BY ____ ANGLE ___ BEARING ___ BORING DEPTH 17 ft. GROUND WATER DEPTH: DURING 7 ft. COMP. DELAYED 7.5 ft. after 18 hrs. NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS - brown to dark grey, slightly weathered granitic gneiss; sandy gravel, fragments are competent grades to mottled gray and tan sand w/ small gravels; slightly damp Silty Sand (SM) - mottled brown, grey, tan, wet, w/ fewer gravel sized seps, possible small clayey silt layer possible solid rock content, possible confining layer - 20% - tan to brown, slightly weathered gneiss; very competent, sandy gravel, very moist clay to 40% clay. 8' to 10' minor amounts of oxide - grey, white, very hard, sample is extremely competent, staining. displays ideal gneissic bonding w/ pink (feldspar) and white bands (quartz) up to .5" thick, lacks fractures and oxide staining, dry Bottom of borehole at 17.0 feet.





- 11/9/11 15:48 - T:JESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL

ESEE DATABASE.GDT

GEOTECH ENGINEERING LOGS -

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/23/2011 COMPLETED 2/23/2011 SURF. ELEV. Not Surveyed COORDINATES: ___ CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic LOGGED BY G. Dyer CHECKED BY ANGLE BEARING DRILLED BY BORING DEPTH 16.5 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED 4.2 ft. after 20 hrs. NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Silt (SM) - tan, brown, wet, low to medium plasticity, fine sand; few gravel sized pieces of quartz, clay fraction = 10% Poorly-graded Sandy Gravel (SP) - mottled tan, brown, dark grey, moist, low plasticity, 0.0 medium to coarse grain, w/ gravel, gravel is comprised of quartz/gneissic fragments, some clay (approximately 9%) 900 Gneiss - grey, white, hard, very competent, MOP iron oxide staining, some gold staining, quartz and feldspar bands 2" thick 10 - grey, white, hard, very competent, small amounts of iron staining w/ some gold staining, no fractures Poorly-graded Gravel (GP) 000 - zone of angular gravel, oxide staining - grey, white, hard, some oxide staining, competent Bottom of borehole at 16.5 feet. gravel resembles that of stream bed.





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ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T\ESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSL

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 7/12/2011 COMPLETED 7/12/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD HQ Casing; HQ Rock Core DRILLED BY ______LOGGED BY _B. Gallagher ____ CHECKED BY _____ ANGLE _____ BEARING _ BORING DEPTH 20.5 ft. GROUND WATER DEPTH: DURING COMP. DELAYED 8.5 ft. after 18 hrs. NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS (ML) - dark brown, damp, medium dense, thin layer of silty fill over silty, sand residuum to partially weathered rock 10 Auger Refusal at 12.0 ft. - white and black, hard, slightly weathered, schistose with RC 12.0-WR-WR-WR 100 quartz phenocrysts 15.5 (0) (100)- healed joint at 12.2 ft. WR-WR-WR RC 15.5-100 -2 20.5 (0) (100)20 Bottom of borehole at 20.5 feet. 25 30 35 40





LOGS.GP.

PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL

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SEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/23/2011 COMPLETED 2/23/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY _____LOGGED BY G. Dyer CHECKED BY ____ ANGLE ____ BEARING __ BORING DEPTH 15 ft. GROUND WATER DEPTH: DURING COMP. DELAYED 3.4 ft. after 16 hrs. NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Silty Sand (SM) - orange, red, damp, w/ organics 111 Poorly-graded Sandy Gravel (SP) - light grey, wet, coarse grain, w/ gravel (stream bed 000 2' - 6' high yield zone. deposit), gravels are angular and small 60° 0.0 0 C 000 .0 6' - 11' moderate yield zone. Silty Sand (SM) - orange, moist, w/ some clay (approximately 5%) - orange, tan, damp, increased consolidation, orginal gneissic foliations (relic structures observed in sediment) , less H2O 10 111



LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia SAMPLE DEPTH (ft.) RECOVERY % (RQD) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Silty Sand (SM)(con't) 111 - less consolidation then 8' - 16' section, finer grained, and more clay (approximately 10%) GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTSWPROJECTSWANSLEYWANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ sanded up to 18'. Partially Weathered Rock - mottled red, brown, tan, highly weathered, saprolite 20 Gneiss Bottom of borehole at 15.0 feet. 30





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2011/PLANT WANSL

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PROJECTS/PROJECTS/WANSLEY/WANSI

MAJOR

15:48 -

ESEE DATABASE.GDT

ENGINEERING LOGS -

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED _2/23/2011 ___ COMPLETED _2/24/2011 __ SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY ______LOGGED BY _G. Dyer _____ CHECKED BY _____ ANGLE _____ BEARING ___ BORING DEPTH 37.5 ft. GROUND WATER DEPTH: DURING 17 ft. COMP. DELAYED NOTES SAMPLE TYPE NUMBER SAMPLE DEPTH (ft.) GRAPHIC LOG RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Poorly-graded Sand (SP) - orange, damp, w/ trace organics Poorly-graded Sand with Silt (SP-SM) - mottled dark brown, tan, damp, w/ some medium sized gravels: sand = 70%, silt = 20%, and gravels = 10%. gravels are weathered gneiss, not very competent mod well sorted and poorly graded, potentially trace clays 7' - 8' more dry. - zonation of more tan sediment from 12' to 13' 10 15 - red, wet, w/ few clays (approximately 5%) 20 - damp Poorly-graded Sandy Gravel (SP) - brown, red, slightly damp, w/ gravel - grey, white, slightly weathered gneiss weathering to silt, competent, some iron staining and pyrite staining w/ increasing depth - grey, white, moderate amounts of Fe oxide staining, heavy pyrite staining Bottom of borehole at 37.5 feet.



DRILLED BY ___

GRAPHIC LOG

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Mica SCHIST

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GEOLOGY LOG -45

SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

Poorly-graded Sandy Gravel (GP)

course, Gravel is angular, poorly sorted

gravel is partially weathered SCHIST

gravel is partially weathered SCHIST

moderately weathered, moist

- SAA, more H20 content Poorly-graded Sand (SP)

coarse micaceous sands Poorly-graded Sandy Gravel (GP)

Poorly-graded Sand (SP)

fewer gravel than previous intervals

Poorly-graded Sandy Gravel (GP)

NOTES Well installed. Refer to well data sheet.

LOG OF TEST BORING PROJECT Plant Wansley LOCATION Carrollton, Georgia DATE STARTED 2/24/2011 COMPLETED 2/24/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic LOGGED BY G. Dyer CHECKED BY ANGLE BEARING BORING DEPTH 87.5 ft. GROUND WATER DEPTH: DURING COMP. DELAYED HCL MATERIAL DESCRIPTION COMMENTS - light red / moderate reddish orange (10R 6/6) very moist, Sand is - GP: brown (10YR 5/3) and black (10YR 2/1) moist, Highly micaceous, - GP: brown (10YR 5/3) and black (10YR 2/1) moist, Highly micaceous, - brown (10YR 4/3), light brown (7.5YR 6/3) and black (10YR 2/1) - brown (10YR 4/3), light brown (7.5YR 6/3) and black (10YR 2/1) moderately to highly weathered, Relic Structures visible, moist - brown (10YR 4/3), light brown (7.5YR 6/3) and black (10YR 2/1) wet, - brown (10YR 4/3), light brown (7.5YR 6/3) and black (10YR 2/1) moist, medium to coarse grained sands with SCHIST gravel - GP: brown (10YR 4/3) and light brown (7.5YR 6/3) wet - brown (10YR 4/3) and light brown (7.5YR 6/3) damp, mostly sand,

(Continued Next Page)

- grav (10YR 6/1) and white (10R 8/1) GNEISS 60% gravel, 40% sand





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SIMPLE GEOLOGY LOG - ESEE DATABASE, GDT - 11/9/11 15:55 - TAESEE MAJOR PROJECTS/PROJECTS/WANSLEYWANSLEY 2011/PLANT WANSLEY WELL

110

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia HCL REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Poorly-graded Sandy Gravel (GP) (Con't) **GNEISS** - gray (10YR 6/1) and white (10YR 8/1) not weathered, hard and competent - brown (10YR 4/3), light brown (7.5YR 6/3) and black (10YR 2/1) 0 completely weathered, most likely a fractured or fault zone, very micaceous, wet **GNEISS** 60 - gray (10YR 6/1) slightly weathered, hard, very competent, dry Poorly-graded Sandy Gravel (GP) 70 - brown (10YR 4/3), light brown (7.5YR 6/3) and dark grayish brown / dark yellowish brown (10YR 4/2) damp, highly weathered SCHIST **GNEISS** 80 - gray (10YR 6/1) and white (10YR 8/1) slightly weathered, competent, hard, prevalent Fe-oxide staining 85 Bottom of borehole at 87.5 feet. 90 95 100 105





LOGS.GP.

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PROJECTS/PROJECTS/WANSL

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GDT - 11/9/11 15:48 -

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ENGINEERING

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 6/28/2011 COMPLETED 6/28/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR SCS Field Services EQUIPMENT METHOD 3 1/4" Hollow Stem Auger DRILLED BY _____LOGGED BY _D. Brooks ____ CHECKED BY ____ ANGLE ____ BEARING __ BORING DEPTH 20.5 ft. GROUND WATER DEPTH: DURING COMP. DELAYED 5.97 ft. after 12 hrs. NOTES Well installed. Refer to well data sheet. SAMPLE DEPTH (ft.) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Poorly-graded Sand (SP) - brown and gray, moist, loose 2-3-4 4.5-6.0 (7)A Silty Sand (SM) SS 15-10-50/2" 9.5-- gray and brown, wet, very dense 10.7 (100+)SS | 14.5- | 50-WR-WR/-14.8 (100+)20 Bottom of borehole at 20.5 feet.





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - TAESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

	SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING PROJECT Plant Wansley LOCATION Carrollton, Georgia							
DATE	STARTI	ED <u>2/28/2011</u> COMPLETED <u>2/28/2011</u> SURF. ELEV. <u>Not Sur</u>	veve	ed CO	ORDINATES:			
		R Boart Longyear EQUIPMENT METHO						
		LOGGED BY C. Sellers CHECKED BY						
		TH 48 ft. GROUND WATER DEPTH: DURING COI				Continent Continent of the Continent of		
		installed. Refer to well data sheet.						
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	Veak	Moderate REACTION Strong	CON	1MENTS		
		Silty Sand (SM) - brown (10YR 4/3) and light red / moderate reddish orange (10R 6/6) trace of gravel		200				
5		Silty Sand (SM)						
	0.4.0	- light red / moderate reddish orange (10R 6/6) damp						
	4.00.0	(PWR) - gray (10YR 5/1) saprolite damp, very micaceous						
10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
20	7 0 0 0 V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- PWR: gray (10YR 5/1) saprolite wet, micaceous						
25	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	- PWR: gray (10YR 5/1) saprolite wet, micaceous, *From 20-28 orange bandind every 1.5'						
30	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Dariuliu every 1.5						
35	4.0.0							
		schist - gray (10YR 5/1) moderately weathered, damp						
40		- SCHIST: gray (10YR 5/1) damp						
45	0.4.Q.	(PWR)						
	777	- gray (10YR 5/1) saprolite	-					
	1/1/	SCHIST - black (2.5Y 2.5/1)				The second secon		
		Bottom of borehole at 48.0 feet.						





MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY

ESEE DATABASE.GDT

GEOTECH ENGINEERING LOGS -

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LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 6/28/2011 COMPLETED 6/28/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD 3 1/4" Hollow Stem Auger DRILLED BY _____LOGGED BY _D. Brooks ____ CHECKED BY ____ ANGLE _____ BEARING __ BORING DEPTH _24.9 ft. ____ GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED NOTES Well installed. Refer to well data sheet. DEPTH SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) SAMPLE DI (ft.) MATERIAL DESCRIPTION COMMENTS Clayey Sand (SC) - reddish brown, damp, medium dense, with wood chips 7-13-10 4.5-6.0 (23)10 SS 9.5-7-7-5 11.0 (12)15 Silty Sand (SM) 14.5- 17-50-WR/-2" 15.3 (100+)- gray, wet, very dense, saprolite 20 30-50-WR/-2' SS 19.5-20.3 (100+)25 SS 24.5-50-WR-WR/-Bottom of borehole at 24.9 feet. 24.9 (100+)30 35





LOGS.GPJ

GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTSIPROJECTSIWANSLEYWANSLEY 2011/PLANT WANSLEY WELL

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LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 6/27/2011 COMPLETED 6/28/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD 3 1/4" Hollow Stem Auger DRILLED BY _____LOGGED BY _D. Brooks ____ CHECKED BY _____ ANGLE ____ BEARING _ NOTES Well installed. Refer to well data sheet. SAMPLE TYPE NUMBER SAMPLE DEPTI (ft.) GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Clayey Sand (SC) - brown, damp, loose, fine grain, with pieces of wood 2-5-6 4.5-6.0 (11)2-3-4 9.5-11.0 3-1-3 14.5-16.0 (4) 19.5-2-3-3 - yellowish red below 19.5 ft 21.0 (6) 24.5-3-3-4 26.0 (7) 2-2-3 SS 29.5-31.0 - yellowish red, wet, dense, saprolite 50 Bottom of borehole at 50.5 feet.





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2011/PLANT WANSLEY WELL

ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY

GEOLOGY LOG -

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 3/1/2011 COMPLETED 3/1/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY _____ LOGGED BY _C. Sellers ____ CHECKED BY ____ ANGLE ____ BEARING __ BORING DEPTH 27.5 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED NOTES Well installed. Refer to well data sheet. , REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Lean Clay (CL) - red (10R 4/8) small amount of sand Silty Sand (SM) - light yellowish brown (10YR 6/4) wet, mica at 7.5', black organics throughout Silty Sand (SM) - gray (10YR 5/1) wet, traces of gravel - gray (10YR 5/1) saprolite wet SCHIST black (2.5Y 2.5/1) Bottom of borehole at 27.5 feet.





GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

SOUTHE	PROJECT _Plant Wansley									
EARTH S	SCIENCE AND ENVIRONMENTAL ENGINEERING	LOCATION Carrollton, Georgia								
DATE STAI	RTED _7/13/2011 COMPLETED _7/13/2011 SURF	F. ELEV. Not	Surveye	ed COORDINA	ATES:					
	TOR SCS Field Services EQUIPMENT 55									
	BYLOGGED BY B. Gallagher		0.4 67	1111-141-1						
	EPTH 34.7 ft. GROUND WATER DEPTH: DURING									
	Vell installed. Refer to well data sheet.					V—————————————————————————————————————				
		T	т							
DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS				
	Sandy Lean Clay (CL) - tan and gray, damp, medium stiff, low plasticity, fine grain, sandy					CNS-97 STOLEN AMERICAN STATE STATE OF THE ST				
5		VI SS	1 = 0.0	2-3-4						
///		-1	4.5-6.0	(7)	-					
///										
10	- with mica and faint rock texture	Y SS	9.5-	2-2-3						
///		-2	11.0	(5)	\vdash					
//			10							
15	Silt (ML)	Y SS	14.5-	2-2-2						
	- olive an ddark gray, moist, loose, faint rock texture	-3	16.0	(4)	\vdash					
20	- reddish orange and tan	▼ SS	19.5-	3-4-7						
	Todaisi stange care and	-4	21.0	(11)	-					
25		▼ SS	24.5-	6-8-10						
40.0:4	Partially Weathered Rock		26.0	(18)						
	- dark gray, moist, silty, trace fine sand									
30	3	00	00 E	00 50 WD/ 48						
0.44	<u>.</u>	SS -1	29.5- 30.2	38-50-WR/-4" (100+)						
4040				Position-Will Volume Motors and a surge						
35 0 7	:					¥				
35	Bottom of borehole at 34.7 feet.	SS -1	34.5-	50-WR-WR/- 10"						
			<u> </u>	(100+)						
40										
45										





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LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED _3/1/2011 ____ COMPLETED _3/1/2011 ___ SURF. ELEV. Not Surveyed COORDINATES: ____ CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic LOGGED BY C. Sellers CHECKED BY ANGLE BEARING DRILLED BY BORING DEPTH 68 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED __ NOTES Well installed. Refer to well data sheet. HCL GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS (OL) - black (10YR 2/1) topsoil Lean Clay (CL) 111 - light red / moderate reddish orange (10R 6/6) from Dyke runoff Silty Sand (SM) - gray (10YR 5/1) contains yellow staining, mica throughout, trace gravel - light red / moderate reddish orange (10R 6/6) saprolite - black organics - CL: light green (5G 7/4) damp, found within saprolite - light red / moderate reddish orange (10R 6/6) saprolite (PWR) - light red / moderate reddish orange (10R 6/6) and gray (10YR 5/1) saprolite damp, trace gravel (PWR) - gray (10YR 5/1) saprolite dry - light red / moderate reddish orange (10R 6/6) saprolite wet, top 2" are black - PWR: gray (10YR 5/1) and light red / moderate reddish orange (10R





- 11/9/11 15:55 - T:TESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL

DATABASE.GDT

SIMPLE GEOLOGY LOG -

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.

PROJECT Plant Wansley EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia REACTION GRAPHIC DEPTH (ft) MATERIAL DESCRIPTION COMMENTS 6/6) saprolite wet, grey with orange streaks (PWR) (Con't) (PWR) 50 - saprolite wet, 30% recovery, consolidated 55 60 - gray (10YR 5/1) saprolite wet 65 SCHIST - contains garnets and mica 70 Bottom of borehole at 68.0 feet. 75 80 85



2011/PLANT WANSL

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MAJOR PROJECTS/PROJECTS/WANSLEY/WANSL

GDT - 11/9/11 15:48 - T:\ESEE

ESEE DATABASE

GEOTECH ENGINEERING LOGS -

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 7/12/2011 COMPLETED 7/12/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR SCS Field Services EQUIPMENT 550X METHOD 3 1/4" Hollow Stem Auger; HQ Casing; HQ Rock Core DRILLED BY LOGGED BY B. Gallagher CHECKED BY ANGLE BEARING BORING DEPTH 34.6 ft. GROUND WATER DEPTH: DURING 14.5 ft. COMP. DELAYED 15.1 ft. after 14 hrs. NOTES Well installed. Refer to well data sheet. DEPTH SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) RECOVERY (RQD) DEPTH (ft) SAMPLE DI MATERIAL DESCRIPTION COMMENTS Silt (ML) - brown and gray, damp, loose, low plasticity 5 SS 4-4-4 4.5-6.0 (8)10 SS 9.5-4-6-6 Lean Clay (CL) 11.0 (12)- gray, moist, medium stiff, low plasticity, with pieces of black schist (possible fill) Clayey Sand (SC) 14.5-2-2-3 16.0 (5)- orangish brown, wet, loose, fine grain 20 SS 19.5-3-2-4 Silty Sand (SM) 21.0 (6)- varigated black white and orangish tan, wet, loose to medium dense, with schist texture 25 24.5-5-6-7 26.0 (13)29.5-5-7-12 SS 31.0 (19)Bottom of borehole at 34.6 feet. 40 45 50





2011/PL

ESEE DATABASE.GDT

GEOLOGY

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 3/2/2011 COMPLETED 3/2/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY _____LOGGED BY _C. Sellers ____ CHECKED BY ____ ANGLE ____ BEARING ___ BORING DEPTH 79 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED __ NOTES Well installed. Refer to well data sheet. HCL GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Sandy Lean Clay (SC) - red (10R 5/8) damp - SC: red (10R 5/8) damp, trace gravel Silty Sand (SM) - light yellowish brown (10YR 6/4) wet, micaceous with gravel - SM: light yellowish brown (10YR 6/4) micaceous with gravel and biotite - SM: light yellowish brown (10YR 6/4) wet, micaceous with gravel and biotite - yellow (10YR 7/6) and gray (10YR 5/1) saprolite damp





LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING PROJECT Plant Wansley

LOCATION Carrollton Georgia

		Carrior And Environment At Engineering Education Carri	Oile	OII,	deorgia
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	Weak	Moderate REACTION Strong	COMMENTS
	0.0.0.0	(PWR) (Con't) - PWR: light yellowish brown (10YR 6/4) saprolite damp, with Forest Green streaking			
45	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(PWR) - brilliant green (5G 6/6) saprolite damp, contains brittle white banding layers			
	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	(PWR) - brilliant green (5G 6/6) and light brown (7.5YR 6/4) saprolite damp			
S NEIL LOGS.	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(PWR) - brown (7.5YR 5/3) saprolite			
PLANT WANSLE	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	(PWR) - brilliant green (5G 6/6) saprolite (PWR) - light brown (7.5YR 6/4) and brilliant green (5G 6/6) saprolite damp, very brittle			
MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY WELL LOGS, GPJ O 9 G O G G	Po Q P Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	very brittle			
ROJECTS/WANSI	0 4 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 .	(PWR) - light brown (7.5YR 6/4) and light red / moderate reddish orange (10R 6/6) saprolite damp			
DR PROJECTS/P	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(PWR) - brown (7.5YR 4/4) saprolite damp			
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
75.55	0 . P. Q				
ATABASE.GDT	0 0 0 0 0 0 0 0 0 0 0 0	Bottom of borehole at 79.0 feet.			
SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - TAESEE					
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MAJOR PROJECTS/PROJECTS/WANSL

ESEE DATABASE.GDT

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GEOLOGY

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 3/2/2011 COMPLETED 3/2/2011 SURF. ELEV. Not Surveyed COORDINATES: EQUIPMENT METHOD Rotosonic CONTRACTOR Boart Longyear DRILLED BY _____LOGGED BY _C. Sellers ____ CHECKED BY ____ ANGLE ____ BEARING ___ BORING DEPTH 65 ft. GROUND WATER DEPTH: DURING COMP. DELAYED NOTES Well installed. Refer to well data sheet. HCL REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Clayey Sand (SC) - red (10R 5/6) - red (10R 5/6) and brown (7.5YR 5/3) saprolite dry, micaceous - PWR: light brownish gray / pale yellowish brown (10YR 6/2) saprolite dry, micaceous - PWR: light brownish gray / pale yellowish brown (10YR 6/2) saprolite damp, more consolidated - PWR: very dark gray (10YR 3/1) saprolite damp **SCHIST** - very dark gray (10YR 3/1) - light brown (7.5YR 6/4) saprolite damp, micaceous - brown (7.5YR 4/4) and gray (10YR 5/1) saprolite wet





2011/PLANT WANSLEY WELL

15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY

- 11/6/11

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia HCL REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Silty Sand (SM) - gray (2.5Y 5/1) (PWR) - brown (7.5YR 4/4) and gray (10YR 5/1) saprolite wet 45 Silty Sand (SM) 50 - very dark gray (10YR 3/1) dry - gray (10YR 6/1) and light brown (7.5YR 6/3) saprolite wet, micaceous 60 SCHIST - contains garnets and mica Bottom of borehole at 65.0 feet. 70 75 80 85





GPJ

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2011/PLANT WANSL

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PROJECTS/PROJECTS/WANSLEY/WANSL

GEOLOGY LOG - ESEE DATABASE.GDT

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/15/2011 COMPLETED 2/15/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT _____ METHOD Rotosonic DRILLED BY _____LOGGED BY _C. Sellers/ Gallagher CHECKED BY _____ ANGLE ____ BEARING BORING DEPTH 48.2 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED ____ NOTES Well installed. Refer to well data sheet. , REACTION GRAPHIC DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Clayey Sand (SC) - reddish brown (5YR 5/3) damp Poorly-graded Sand (SP) - light brown (7.5YR 6/3) Clayey Sand (SC) - saprolite contains mica Poorly-graded Sandy Gravel (SP) - white (10R 8/1) feldspar rich sands, trace gravels Silty Sand (SM) 10 - pale brown (10YR 6/3) saprolite contains mica, gravel Clayey Sand (SP) 111 - red (10R 5/6) trace clay Lean Clay (CL) - brown (7.5YR 4/3) and red (10R 5/8) Silty Sand (SM) - red (10R 5/8) and yellow (10YR 7/6) micaceous, trace gravel 20 Silty Sand (SM) - yellow (10YR 7/6) and brown (7.5YR 4/3) micaceous, trace schist Silty Sand (SM) - saprolite micaceous, schist gravel, (5' of recovery: start water @ 29' and stoped @ 35') 35 (PWR) - black (5YR 2.5/1) (4' of recovery) Bottom of borehole at 48.2 feet.





2011/PLANT WANSLEY WELL

PROJECTS/PROJECTS/WANSLEY/WANSLEY

- 11/9/11 15:55 - T:\ESEE MAJOR

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GEOLOGY

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED _2/15/2011 ___ COMPLETED _2/15/2011 __ SURF. ELEV. _Not Surveyed COORDINATES: _____ CONTRACTOR Boart Longyear EQUIPMENT METHOD Rotosonic DRILLED BY _____LOGGED BY _B. Gallagher/ Sellers CHECKED BY _____ ANGLE ____ BEARING __ BORING DEPTH 58.3 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED __ NOTES Well installed. Refer to well data sheet. HCL GRAPHIC DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Silty Sand (SM) 111 - red (2.5YR 4/6) and yellow (2.5Y 8/8) trace gravel Silty Sand (SM) 111 - red (2.5YR 4/6) and brown (7.5YR 5/4) 10 Poorly-graded Sand (SP) - white (10YR 8/1) weathered feldspar Silty Sand (SM) - red (2.5YR 4/6) and brown (7.5YR 5/4) streaks of mica, beginning to be clayey Clayey Sand (SC) 20 - red (2.5YR 4/6) with mica Silty Sand (SM) - red / moderate reddish brown (10R 4/6) and brown (7.5YR 5/4) Clayey Sand (SC) - red (2.5YR 4/6) saprolite micaceous Silty Sand (SM) - dark yellowish brown (10YR 4/6) micaceous, with trace schist Clayey Sand (SC) - red (2.5YR 4/6) contains some gravel Clayey Sand (SC) - brown (7.5YR 5/4) with white gravel throughout Silty Sand (SM) - yellow (2.5Y 8/8) and white (10YR 8/1) saprolite Silty Sand (SM) 40 - brown (7.5YR 4/2) 50% recovery (PWR) - gray (10YR 5/1) **GNEISS** Bottom of borehole at 58.3 feet.





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15:55

- 11/9/11

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E GEOLOGY

LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/16/2011 COMPLETED 2/16/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT _____ METHOD Rotosonic DRILLED BY LOGGED BY B. Gallagher/ C. Selle@HECKED BY ANGLE BEARING BORING DEPTH 56.5 ft. GROUND WATER DEPTH: DURING COMP. DELAYED NOTES Well installed. Refer to well data sheet. HCL REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS (OH) Lean Clay (CL) - red (10R 4/8) very damp, Low Plasticity, trace sand Silty Sand (SM) - red (10R 4/8) with mica - light brown (7.5YR 6/4) and white (10YR 8/1) feldspar layers, contains-Silty Sand (SM) - light brown (7.5YR 6/4) very micaceous, contains PWR Silty Sand (SM) - reddish brown (2.5YR 4/4) micaceous with PWR 20 Silty Sand (SM) - yellowish brown / moderate yellowish brown (10YR 5/4) wet, perched 111 water, some PWR streaks 30 Silty Sand (SM) +11: - dark red (10R 3/6) micaceous 111 40 (PWR) - white (10YR 8/1) dry, feldspar Poorly-graded Sandy Gravel (SM) 900 - trace gravel - SM: yellowish brown / moderate yellowish brown (10YR 5/4) trace 900 - SM: pale yellow / grayish yellow (5Y 8/4) trace gravel 6. D (PWR) - saprolite Bottom of borehole at 56.5 feet.





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

LOG OF TEST BORING

GO1411 WILLIA	DDG IFOT DI							
SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING	PROJECT Plant Wansley LOCATION Carrollton, Georgia							
EARTH SOLENGE AND ENVIRONMENTAL ENGINEERING	LOCATION _Carro	rollton, Georgia						
DATE STARTED 2/16/2011 COMPLETED 2/16/2011 SUR								
CONTRACTOR Boart Longyear EQUIPMENT	METHOD	Rotosonic						
DRILLED BYLOGGED BY _C. Sellers	CHECKED BY	ANGLE	BEARING					
BORING DEPTH 68 ft. GROUND WATER DEPTH: DURING	COMF	P DELAYED	- Comment of the comm					
NOTES Well installed. Refer to well data sheet.								
		T						
(#) MATERIAL DESCRIPTION MATERIAL DESCRIPTION	2	Weak Moderate REACTION Strong OO OO	MENTS					
Silty Sand (SM)		÷ ≥ 0						
red (10R 5/6) dry (PWR)								
Silty Sand (SM) 5 - red (108 5/6)								
5(:):(:) - red (10R 5/6)								
Clayey Sand (SC) - red (10R 5/6)		7						
Silty Sand (SM)		-						
10 [[-]:[-] - red (10R 5/6) micaceous								
<u>(448)</u>								
15 (44)	2000 S. 2000 A. D. C.							
Ap .0:4 3-N -2: (PWR)	ME000/4	7 i i i						
red (10R 5/6) saprolite 0.5" white layer at 16.5'								
Silty Sand (SM)		-						
- yellowish brown / moderate yellowish brown (10YR 5	5/4) micaceous with							
red streaks								
49 5:4 (DMD)		4 ! !						
(PWR) PWR PWR PWR PWR	5/4) saprolite trace							
25 :::								
4v4vt 0,414v								
30 A a								
		7 []						
- red (10R 5/6) saprolite damp								
Αν _α ν.								
6.84.4								
4 9 4 9 8 9 9 (PWR)		- ! !						
35 - yellowish brown / moderate yellowish brown (10YR 5	5/4) saprolite damp							
	en en en en en en en en en en en en en e							
0.8.4.A								
4 9 4 9	12							

(Continued Next Page)





LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING PROJECT Plant Wansley

LOCATION Carrollton, Georgia

DEPTH (ft)	0	MATERIAL DESCRIPTION	Weak Moderate REACTION	COMMENTS
	0.0.0	(PWR) (Con't)	1 : :	
	4.00.0			
		(PWR)		
	0 4 4 6 0 4 4 6	- white (2.5Y 8/1) dry		
45	4040			
	0.0.0	(PWR)	1 1 1	
	P.00	- yellowish brown / moderate yellowish brown (10YR 5/4) saprolite damp		
5	40,0	(PWR)	1 ! !	
9 50 50	0 0 0 0	- yellow (10YR 7/6) saprolite damp		.*
9	4040			
	0.4.0	(PWR)		
	4.00	- yellowish brown / moderate yellowish brown (10YR 5/4) saprolite damp		
	0 0 0 0			
№ 55	0.04.0			
A	4000			
2011	0 0 0			
SIE	4.00	(PWR)		
60	0.0.0. 0.0.0.	 yellowish brown / moderate yellowish brown (10YR 5/4) saprolite wet, with gravel 		
<u> </u>	4046	~ · · · · · · · · · · · · · · · · · · ·		
	9.0.0			
TS/W	0.0.0			
65 65	ΔΨ.Ψ			
NPRO	0.4.0.4			
ЕСТВ	17.17	GNEISS		2
<u></u>	1	Bottom of borehole at 68.0 feet.] : :	
E		Bottom of boreflore at 66.0 feet.		
70 WA	1			
ESEE	1	₹		
Ē				
15:55				
75	-			
÷	-			
GDT	1			
ASE	-			
ATAB 08	1			
EE D.				
- ES				
SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - TXESEE MAJOR PROJECTS/WANSLEY/WANSLEY Z011/PLANT WANSLEY WELL LOGS.GPJ G G G G				
S 85	+			
SIMP	1			





GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TXESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

		IN CONFAINT SERVICES, INC.	PROJECT Plant Wansley OCATION Carrollton, Georgia							
DATE	STAF	RTED <u>2/22/2011</u> COMPLETED <u>2/22/2011</u> SURF. EL	EV Not	Suprove	od COORDIN	ATEC.				
		OR Boart Longyear EQUIPMENT								
		YLOGGED BY G. Dyer CHEC								
		PTH 43 ft. GROUND WATER DEPTH: DURING								
		/ell installed. Refer to well data sheet.								
DEPTH (ft)	BB 1	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS			
5 10 15 20		- orange, damp, low plasticity, w/ gravel sized pieces of quartz - quartz is angular - sample is weathered from schist, some clay found (approximately 10%), micas weathering to white clay minerals - orange, slightly damp, orange grading down to white; fewer clay minerals (approximately 5%), sediment is less consolidated than 0' - 4' section. white material is highly weathered schist, relic cleavages and foliations can barely be discerned Schist - white, tan, has weathered to medium grained sands w/ less than 10% silt, wet - mottled tan, brown, weathered, coarse sand to gravel sized, poorly sorted and graded, gravel sized pieces are structually intact schist. grades to more tan, sand and gravel sized regolith, preferential bands of more competent schist found (dark), dry - banded tan, orange, white, weathered, coarse sand to gravel sized, white sediments contain larger fragments of schist, dry Silty Sand (SM) - tan, wet, medium grain Poorly-graded Sand (SP) - mottled white, tan, orange, dry, fine to medium grain, w/ angular, gravel sized schist fragments					no quartz, orange grades to white. perched 8' - 10' H2O. tan. orange. white/grey.			
		Bottom of borehole at 43.0 feet.								
		Bottoni di bolende at 43.0 feet.								



GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T:JESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

60

SOUTHERN COMPANY SERVICES, INC.			PROJECT Plant Wansley									
EAF	RTH S	CIE	NCE AND ENVIRONMENTAL ENGINEERING	LOCATION Carrollton, Georgia								
DATE	STAF	RTF	D _6/21/2011 COMPLETED _6/26/2011 SURF.	FLFV	Not	Survey	ed COORDINA	TES.				
			SCS Field Services EQUIPMENT 550									
DRILLED BY LOGGED BY B. Gallagher/D. Brook@HECKED BY ANGLE												
			H _54.7 ft GROUND WATER DEPTH: DURING _									
			installed. Refer to well data sheet.									
				Τ.		I						
I	2			2	SAMPLE IYPE NUMBER	SAMPLE DEPTH (ft.)	rs JE)	% ۲۲ (
DEPTH (ft)	GRAPHIC LOG		MATERIAL DESCRIPTION	[MBE	(#ED	BLOW COUNTS (N VALUE)	RECOVERY (RQD)	COMMENTS			
Ω	GB				N	MPI	S _{CB}	ECC (F				
	127.1.		***************************************	0	מ	SA		Ж				
			Sandy Silt (ML) - brown, damp									
•••••												
•••••	111	-	Silty Sand (SM)			-						
	111	\vdash	- tan, damp	\mathcal{A}								
10		H	Poorly-graded Sand (SP) - tand and white, damp				1.5		Auger Refusal at 9.5 ft.			
	11	1	Gneiss	, III	RC	9.5-	WR-WR-WR	96	Auger Heidsar at 9.5 it.			
	//		- gray and pink, medium to fine grain, soft, highly weathered	THE PERSON NAMED IN	-1	14.7	(0)	(17)				
	12		- quartz bands at 10.6 ft - stained joint at 11 ft									
	1//	1	 medium hard, slightly weathered, slightly stained below 11.5 ft 	w	RC	14.7-	WR-WR-WR	100				
20	1		- stained joint at 13.2 ft	MANUAL MA	-2	19.7	(0)	(52)				
20	17		- stained joint at 13.7 ft - hard, slightly weathered, below 15.2 ft									
			 9 stained joints from 15.7 to 19.7 ft hard, not weathered, below 19.7 ft 		RC -3	19.7- 24.7	WR-WR-WR (0)	100 (96)				
	11		- 3 partially healed, slightly stained joints from 20.9 to 24.6 ft	Н								
	, 1/		 hard, slightly weathered, below 24.3 ft soft to hard, highly to slightly weathered, with 11 		RC	24.7-	WR-WR-WR	100				
			weathered, stained joints from 24.7 to 26.5 ft - hard, slightly weathered, below 26.5 ft	100	-4	29.7	(0)	(42)				
30	[2]		- slightly weathered, stained joints from 29.7 to 34.7									
	1				RC -5	29.7- 34.7	WR-WR-WR (0)	100 (74)				
	1			Ш		PERMI	X-7.	()				
	17		 healed fractures broken by coring from 33.7 to 34.7 ft high-angle joint with dry gray clay coating from 35.9 to 		RC	34.7-	WR-WR-WR	100				
	//		36.5 - stained, healed, high-angle joint from 37.2 to 37.7	3	-6	39.7	(0)	(60)				
40	1	Ā	- stained, high-angle joint from 38.7 to 39.7					-	Lost circulation at 39.5 ft.			
	-17		- heavily stained, high-angle joint at 41.7 ft		RC -7	39.7- 44.7	WR-WR-WR	100	50% return begining at 40 ft. Lost circulation at 40.5 ft.			
	//		- heavily stained, high-angle joint at 43.7 ft	1	-/	44.7	(0)	(68)				
	171		- heavily stained, high-angle joint at 44.2 ft	THE PERSON	DC.	447	WD WD WD	00	a f			
	1/			The same of	RC -8	44.7- 49.7	WR-WR-WR (0)	90 (16)				
50	1/-			H								
	(5)				RC	49.7-	WR-WR-WR					
	//		.***	Name of Street	-9	54.7	(0)					
			Bottom of borehole at 54.7 feet.		!							





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:ESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

		THE COMPANY SERVICES, INC.	.10	see see	<i>y</i> eorgia	
DATE	CTAD					
		TED 2/17/2011 COMPLETED 2/17/2011 SURF. ELEV. Not Surf. OR Boart Longyear EQUIPMENT METH				
		LOGGED BY C. Sellers CHECKED BY CHECKED BY				
		PTH 47 ft. GROUND WATER DEPTH: DURING CO		·	DELAYED	
NOTE	Sw	ell installed. Refer to well data sheet.				
				Z		
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		Weak Moderate REACTION Strong	COM	MMENTS
	//	Clayey Sand (SC) - very pale brown / grayish orange (10YR 7/4) damp, fine to medium grained, with trace gravel			50 <u></u>	
5		Clayey Sand (SC) - light red / moderate reddish orange (10R 6/6) damp, fine to medium grained				
10		Clayey Sand (SC) - light red / moderate reddish orange (10R 6/6) damp, micaceous SCHIST	\Box			
		- slightly weathered, crushed	П			
15	1//	SCHIST	٦			
	0.0.0	- crushed	\Box			
	0.4.4	(PWR)	\overline{A}			
	A . Q . Q	(PWR)	۱ ا			
20	0.44.4	- light yellowish brown (10YR 6/4) saprolite wet				
	4940					
	0.4.0.					
25	4.00.0					
	AVAV					
	0.44.4					
	4000					
30	□ V _ 7					
	4.00					
	31131 1111	Silty Sand (SM)				
35		- very pale brown / grayish orange (10YR 7/4) wet				
	111					
	311	Silty Sand (SM)	\dashv			
		- very pale brown / grayish orange (10YR 7/4) wet				
40		The state of the s				
45	111					
,,,	111					
	1111	Bottom of borehole at 47.0 feet.		i i]		
		DOLLOTH OF DOTERIOR AL 47.0 Teet.				



GEOTECH ENGINEERING LOGS • ESEE DATABASE.GDT • 11/9/11 15:48 • TAESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

40

		OWFANT SERVICES, INC.			Castro St.						
DATE	STARTE	0 6/20/2011 COMPLETED 6/21/2011 SURF. I	ELEV	. Not	Surveye	ed COORDINA	ATES:				
		SCS Field Services EQUIPMENT 550X									
DRILLED BYLOGGED BY B. Gallagher CHECKED											
		34.2 ft. GROUND WATER DEPTH: DURING									
NOTE	NOTES _ Well installed. Refer to well data sheet.										
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	L	SAMPLE IYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS			
		Silty Sand (SM) - brown, damp, medium dense, fine grain									
5		Sandy Silt (ML) - tan, damp, medium dense						Auger refusal at 4.7 ft.			
		Gneiss - pink and white, medium to fine grain, hard, slightly weathered, granitoid; with 7 stained slightly weathered joints from 4.7 to 7.4 ft 0.25" quartz vein at 5.9 ft 4 coated joints from 7.4 to 9.2 ft.		RC -1	4.7-9.2	WR-WR-WR (0)	96 (49)	Auger refusal at 4.7 ft.			
		- stained, semi-vertical joint from 11.6 to 12.2 ft.		RC -2	9.2- 14.2	WR-WR-WR (0)	100 (84)				
15		- pink and gray, no weathering below 14.2 ft - horizontal, slightly weathered joint at 14.8 ft - horizontal, slightly weathered joint at 15.2 ft - sub-horizontal, slightly weathered joint at 17.6 ft		RC -3	14.2- 19.2	WR-WR-WR (0)	100 (86)				
20		- sub-horizontal, slightly weathered joint at 18.4 ft - slighty weathered, stained joint at 20 ft - slightly weathered with 0.1 ft quartz lens from 21 to 21.5 ft - healed joint at 22.2 ft.	5	RC -4	19.2- 24.2	WR-WR-WR (0)	100 (90)	Lost Circulation at 21 ft.			
25		- slighty weathered, stained joint at 23.9 ft - slighty weathered, stained joint at 25.4 ft - slightly weathered from 26.2 to 26.7 ft - slighty weathered, stained joint at 27.2 ft	Annual Community of the	RC -5	24.2- 29.2	WR-WR-WR (0)	100 (88)				
30	1/-	- slightly weathered from 30.3 to 31.9 ft - slightly weathered, medium hard joint at 31.3 ft. - stained, near vertical joint from 32.2 to 32.5 ft.	A TON THE PARTY OF	RC -6	29.2- 34.2	WR-WR-WR (0)	100 (76)				
35		Bottom of borehole at 34.2 feet.									





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:LESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

SOL	JTHERN	COMPANY SERVICES, INC. PROJECT Plant	t War	nsley				
		ENCE AND ENVIRONMENTAL ENGINEERING LOCATION Car	rollto	n, Geo	orgia			
		ED <u>2/18/2011</u> COMPLETED <u>2/18/2011</u> SURF. ELEV. Not Surv						
CONT	RACTO	R Boart Longyear EQUIPMENT METHOD	Ro	toson	ic			
DRILL	ED BY	LOGGED BY C. Sellers CHECKED BY			ANGLE		_ BEARING _	
BORII	NG DEP	TH 30 ft. GROUND WATER DEPTH: DURING COM	IP		DELAY	ED		
NOTE	S We	Il installed. Refer to well data sheet.						
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	Weak Moderate	itrong REACTION	ä	СОММ	ENTS	
	//	Clayey Sand (SC)	> 2					
. 		- light red / moderate reddish orange (10R 6/6)] }					
5		Clayey Sand (SC) - weak red / pale reddish brown (10R 5/4) with weathered SCHIST gravel						
	//	Clayey Sand (SC)	┨ :					
10		- yellowish brown / moderate yellowish brown (10YR 5/4) damp						
		Clayey Sand (SC)	1					
		- brown (7.5YR 4/2) damp						
		Silty Sand (SM) - light gray (10YR 7/1) with large SCHIST gravel						
15			1					
		SCHIST	- 1					
		- and gray (10YR 5/1) slightly weathered, heavy red stain						
•••••		3, (·······, ···g···, ····ai-·····, ·····, ·····						
20								
	1/2							
25		9						
25	///							
	-1	GNEISS	1 !					
	//	- and gray (10YR 5/1)						
	/-							
30	1/	Bottom of borehole at 30.0 feet.	_ :					
		bottom of borehole at 30.0 feet.						
•••••								
35								





2011/PLANT WANSL

EYWANSLEY

PROJECTS/PROJECTS/WANSL

MAJOR

40

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.

PROJECT Plant Wansley EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia DATE STARTED 2/18/2011 COMPLETED 2/18/2011 SURF. ELEV. Not Surveyed COORDINATES: CONTRACTOR Boart Longyear EQUIPMENT _____ METHOD Rotosonic DRILLED BY _____ LOGGED BY _C. Sellers ____ CHECKED BY ____ ANGLE ____ BEARING ___ BORING DEPTH 21 ft. GROUND WATER DEPTH: DURING _____ COMP. ____ DELAYED __ NOTES Well installed. Refer to well data sheet. , REACTION GRAPHIC LOG DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Lean Clay (CL) - red (10R 4/8) Clayey Sand (SC) - light red / moderate reddish orange (10R 6/6) - brown (7.5YR 5/4) and light red / moderate reddish orange (10R 6/6) (PWR) - white (10YR 8/1) weathered - red (10R 4/8) and brown (7.5YR 5/4) very damp, micaceous SCHIST **GNEISS** 20 Bottom of borehole at 21.0 feet. 25 30 35



GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - T:\ESEE MAJOR PROJECTS\PROJECTS\WANSLEY\WANSLEY 2011\PLANT WANSLEY WELL LOGS.GPJ

		SONII FII II							
	SOUTHERN COMPANY SERVICES, INC. PROJECT Plant Wansley								
EAF	RTHS	CIENCE AND ENVIRONMENTAL ENGINEERING LO	CATION	Carrollt	on, Georgia				
DATE	STAR	TED <u>2/21/2011</u> COMPLETED <u>2/21/2011</u> SURF. ELI	EV. Not	Surveye	d COORDIN	ΔTFS:			
		OR Boart Longyear EQUIPMENT							
		LOGGED BY G. Dyer CHEC							
		PTH 48 ft. GROUND WATER DEPTH: DURING							
		ell installed. Refer to well data sheet.							
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	SAMPLE DEPTH (ft.)	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	COMMENTS		
		₹ - lost sample to 8'							
5									
10		Silty Sand (SM)					water 8.5' - 15'.		
10		 orange, tan. black, wet, fine grain, w/ cobble to boulder sized pieces of quartz and highly weathered schist tan, white, very moist, coarse grain, appears to be highly weathered granific gneiss, some clay material 					stark color contrast.		
15		Clayey Silty Sand (SC-SM) - orange, tan, damp, less than 10% clay							
	X	Partially Weathered Rock							
	+	brown, tan, saprolite; moderately consolidated, prevalent mica, and some relic structure							
20	×	- grades to less consolidated and more sand (micaceous) - tan, brown, schist parent rock; brown to black mica streaks; relic structures; medium well consolidated, damp low strength, weathering to fine sand							
		- tan, orange, mod, well consolidated, damp, some relic structures preserved							
25	X	 tan, brown, highly weathered, highly weathered to sand and silt, some relic structures, damp; grades to more orange and tan also more highly weathered 							
	111	Silty Sand (SM)					crator?.		
30	1111	- tan, very damp, fairly well consolidated, well sorted Partially Weathered Rock							
	X	- brown, tan, black, saprolite; schist moderately weathered, some competency, weathering to fine sand, very micaceous, slightly damp					9		
35	×	- mottled brown, black, tan, not competent, moist, weathered to sand and gravel sized schist? mica flakes dry (70% sand, 30% gravel)							
		Poorly-graded Sand (SP)							
40		- light grey, white, very dry, gravel sized schist, gravels are elongate and angular (very competent)							
45		Granite - grey, consolidated, relic structures intact, lacks oxide staining, quartz veining							
50	1	grey, consolidated, relic structures, lacks oxidation, quartz veining			1—14—110 SVA LOVINA				





LOG OF TEST BORING

PROJECT Plant Wansley SOUTHERN COMPANY SERVICES, INC. EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING LOCATION Carrollton, Georgia SAMPLE DEPTH (ft.) RECOVERY % (RQD) SAMPLE TYPE NUMBER GRAPHIC LOG BLOW COUNTS (N VALUE) DEPTH (ft) MATERIAL DESCRIPTION COMMENTS Granite(con't) Bottom of borehole at 48.0 feet. GEOTECH ENGINEERING LOGS - ESEE DATABASE.GDT - 11/9/11 15:48 - TAESEE MAJOR PROJECTS/PROJECTS/WANSLEYWANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ 60 65 70 75 80 85 90 95 100 105





SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 11/9/11 15:55 - T:LESEE MAJOR PROJECTS/PROJECTS/WANSLEY/WANSLEY 2011/PLANT WANSLEY WELL LOGS.GPJ

40

SOUTHERIN COMPANY SERVICES, INC.	PROJECT Plant Wansley LOCATION Carrollton, Georgia							
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING L	OCATION _Carr	ollton, Georgia						
DATE STADTED 0/7/0044 COMPLETED 0/7/0044 CURE	LEV Not Com		LATEO.					
DATE STARTED 2/7/2011 COMPLETED 2/7/2011 SURF. E CONTRACTOR Boart Longyear EQUIPMENT								
DRILLED BYLOGGED BY _G. Dyer/ D. Brooks_ CHI								
BORING DEPTH 38 ft. GROUND WATER DEPTH: DURING								
NOTES Well installed. Refer to well data sheet.		'.'	_ 5227125					
77.51.71.61.61.71.75.71.7	W <u> </u>		110,000,000					
MATERIAL DESCRIPTION (#) (#) (#) (#) MATERIAL DESCRIPTION		Weak Moderate HCL Strong	COM	MENTS				
Clayey Sand (SC) - black (10YR 2/1) moist, very fine to fine grained		= = = = = = = = = = = = = = = = = = =						
Clayey Sand (SC) - light red / moderate reddish orange (10R 6/6) wet, medivery fine grained sand	um plasticity,							
Silty Sand (SM) - pale brown (10YR 6/3) saprolite some relic structures 1 - SM: brown (7.5YR 4/3) saprolite 12'-15'	0'-12'							
- SM: brown (7.5YR 4/3) SAA except micaceous								
Poorly-graded Gravel with Clay (GP-GC) - dusky red / dark reddish brown (10R 3/4) fine grained sa	and with quartz							
(PWR) - brown (7.5YR 4/3) saprolite SAND, silty and micaceous								
Clayey Sand (SC) - brown (7.5YR 4/3) micaceous with large quartz pebbles								
And And And And And And And And And And	with highly							
35 GNEISS	-costonomin-sur-sur-sur-sur-							
Bottom of borehole at 38.0 feet		J i i j l						



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NOTES:

BORING AND WELL LOG LEGEND

	≻ ∣				I					
	LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	Date & Time	Blow Counts	Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample
×	XXX							ASPHALT CONCRETE FILL		
								TOPSOIL COBBLES IGNEOUS Rock METAMORPHIC Rock SEDIMENTARY Rock		
								Well-graded GRAVEL (GW) Poorly graded GRAVEL (GP) Silty GRAVEL (GM) Clayey GRAVEL (GC)		
								Well-graded GRAVEL with silt (GW-GM) Poorly graded GRAVEL with silt (GP-GM) Well-graded GRAVEL with clay (GW-GC) Poorly graded GRAVEL with clay (GP-GC) Well-graded SAND (SW)		
7/								Poorly graded SAND (SP) Silty SAND (SM) Clayey SAND (SC) Well-graded SAND with silt (SW-SM)		
								Poorly graded SAND with silt (SP-SM) Well-graded SAND with clay (SW-SC) Poorly graded SAND with clay (SP-SC) SILT (ML)		
								Lean CLAY (CL) Organic SOIL (OL) Elastic SILT (MH) Fat CLAY (CH) Organic SOIL (OH)		
<u></u>	1, 11,							PEAT (PT) Volume Descriptors: Trace = <5% Few = 5-10%		
		∇						Little = 15-25% Some = 30-45% Mostly = >=50% Water Level During Drilling		
								Water Level at End of Drilling/in Completed Well Cap Riser Screen		
								Cement Bentonite Grout Bentonite Seal Filter Pack		
				GR EN SS				Backfill Grab Encore Split Spoon		
				ST CO DP				Shelby Tube Core Barrel Direct Push Lab Sample and ID	0.0	ID

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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. **GS-101** Page: 1 of 3

Drilling Start Date: 01/21/2022 Boring Depth (ft): 51 Well Depth (ft): 50.25 Drilling End Date: 01/22/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: SPT Screen Slot (in): 0.010 **Thompson Engineering** Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): NM

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 755.12

Driller: P. Pitts Top of Casing Elev. (ft): 757.29

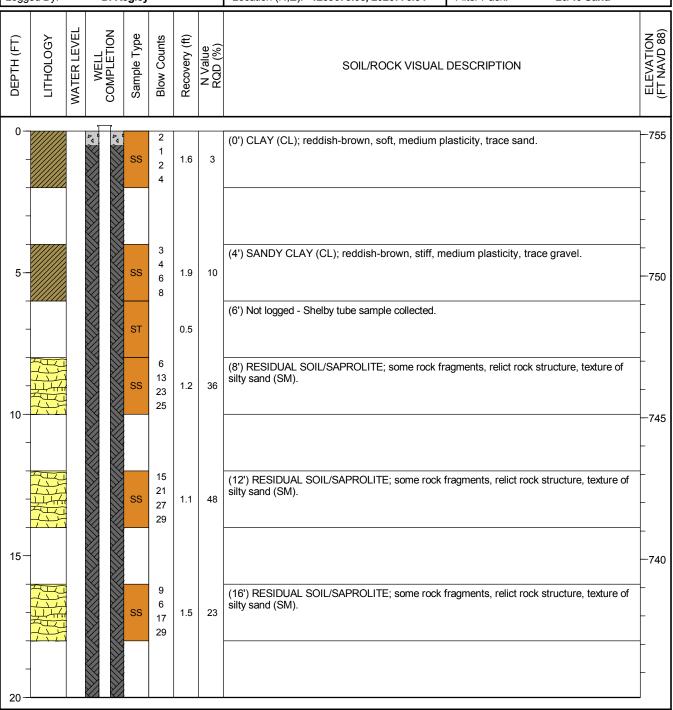
NOTES: Piezometer completed with aboveground PVC stickup.

Logged By: D. Kegley Location (N,E): 1239073.05, 2026776.34

Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted Seal Material(s): Grout/Bentonite

Filter Pack: 20/40 Sand



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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

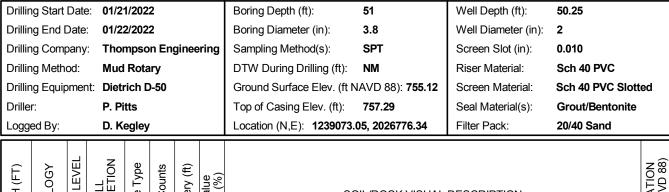
Address: 1371 Liberty Church Rd, Carrollton, GA

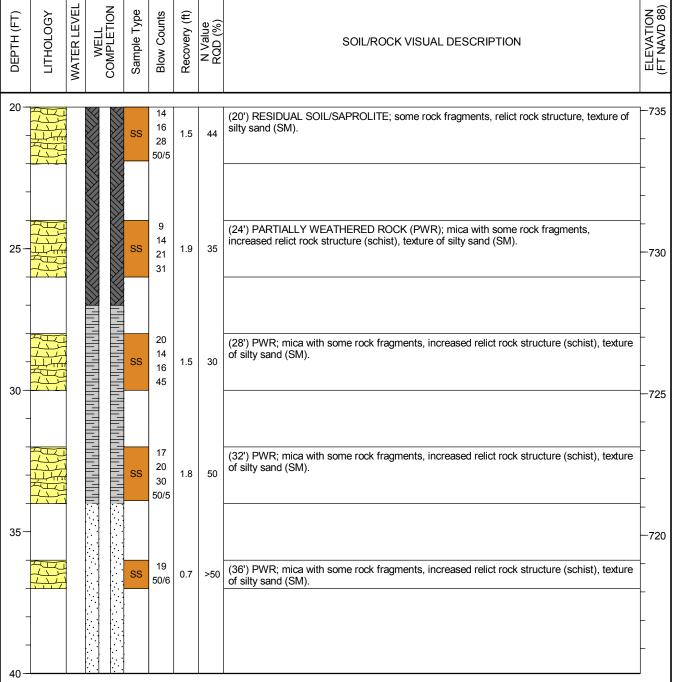
WELL LOG Well No. **GS-101**

2 of 3

Well Depth (ft): 50.25 Well Diameter (in): 2

Page:





NOTES: Piezometer completed with aboveground PVC stickup.



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Sch 40 PVC Slotted

Well No. GS-101

Page: 3 of 3

Well Depth (ft): Drilling Start Date: 01/21/2022 Boring Depth (ft): 51 50.25 Drilling End Date: 01/22/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: **Thompson Engineering** SPT Screen Slot (in): 0.010 Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): Riser Material: Sch 40 PVC NM

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 755.12 Screen Material:

Driller: P. Pitts Top of Casing Elev. (ft): 757.29

Logged By: D. Kegley Location (N,E): 1239073.05, 2026776.34

Seal Material(s): Grout/Bentonite
Filter Pack: 20/40 Sand

WELL COMPLETION ELEVATION (FT NAVD 88) **WATER LEVEL** Sample Type Blow Counts Recovery (ft) DEPTH (FT) LITHOLOGY N Value RQD (%) SOIL/ROCK VISUAL DESCRIPTION 50/4.5 0.3 -715 (40') PWR; mica with some rock fragments, increased relict rock structure (schist), texture of silty sand (SM). 0.2 SS 50/3.5 >50 (44') PWR; mica with some rock fragments, increased relict rock structure (schist), texture of silty sand (SM). 45 710 50-0.2 >50 -705 50/1 (50') SCHIST. (51') Boring terminated.

NOTES: Piezometer completed with aboveground PVC stickup.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. GS-102 Page: 1 of 3

Drilling Start Date: 01/10/2022 Boring Depth (ft): 47 Well Depth (ft): 44.25 Drilling End Date: 01/17/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Screen Slot (in): Drilling Company: SPT 0.010 **Thompson Engineering** Sampling Method(s):

Drilling Method: Mud Rotary DTW During Drilling (ft): NM

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 8

rilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 761.68

Driller: P. Pitts Top of Casing Elev. (ft): 764.85

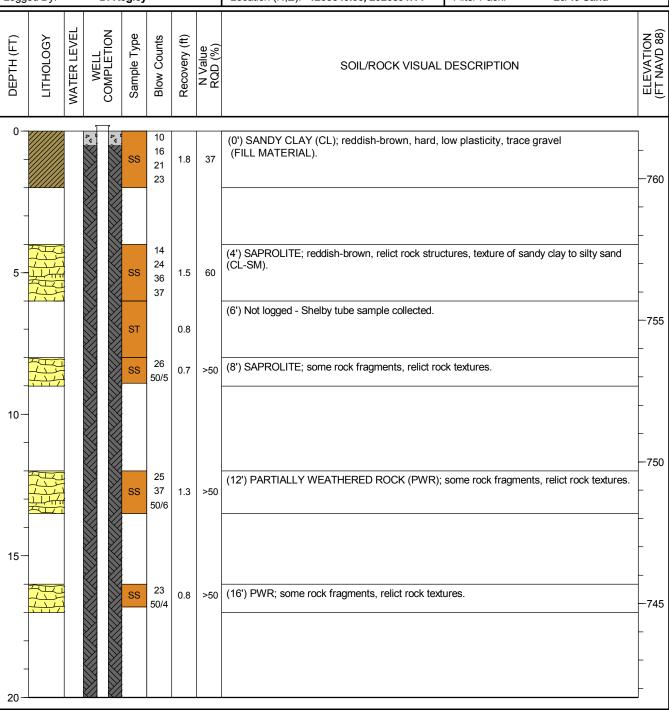
NOTES: Piezometer completed with aboveground PVC stickup.

Logged By: D. Kegley Location (N,E): 1238540.08, 2026891.14

Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted
Seal Material(s): Grout/Bentonite

Filter Pack: 20/40 Sand



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Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Sch 40 PVC Slotted

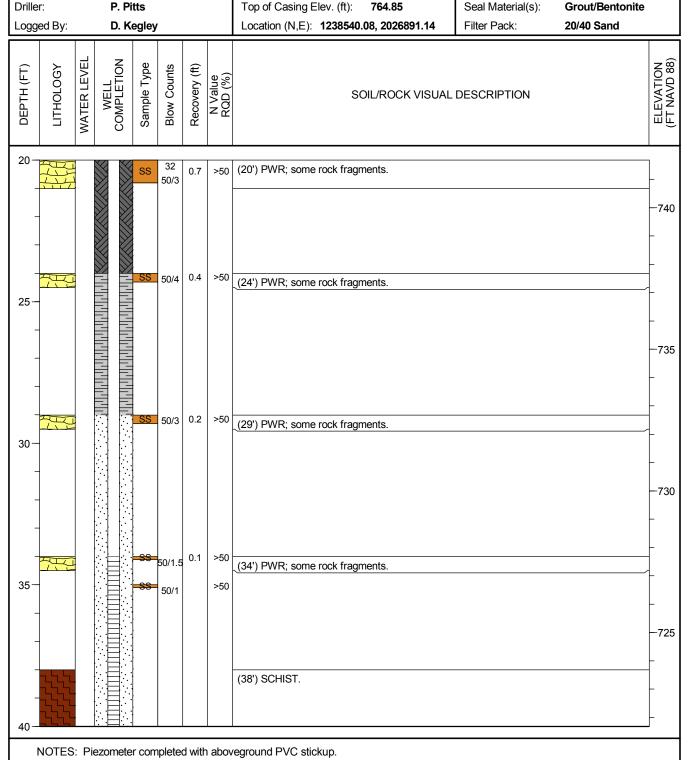
Well No. **GS-102** Page: 2 of 3

Screen Material:

Well Depth (ft): Drilling Start Date: 01/10/2022 Boring Depth (ft): 47 44.25 Drilling End Date: 01/17/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: **Thompson Engineering** SPT Screen Slot (in): 0.010 Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): Riser Material: Sch 40 PVC NM

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 761.68

Driller: P. Pitts 764.85 Top of Casing Elev. (ft):





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. GS-102

Page: 3 of 3

Drilling Start Date: 01/10/2022 Well Depth (ft): 44.25 Boring Depth (ft): 47 Drilling End Date: 01/17/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: **Thompson Engineering** Sampling Method(s): **SPT** Screen Slot (in): 0.010

Drilling Method: Mud Rotary DTW During Drilling (ft): NM

Drilling Equipment: **Dietrich D-50** Ground Surface Elev. (ft NAVD 88): **761.68**

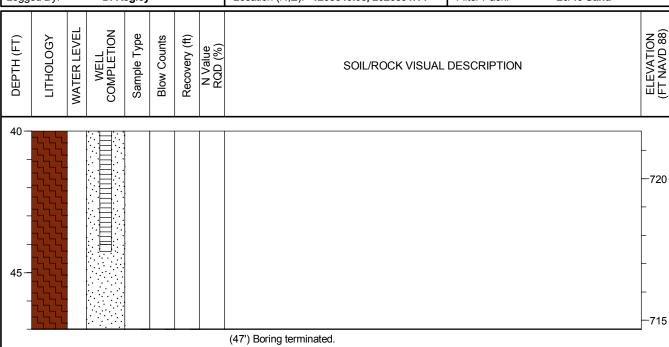
Driller: P. Pitts Top of Casing Elev. (ft): 764.85

Logged By: D. Kegley Location (N,E): 1238540.08, 2026891.14

Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted
Seal Material(s): Grout/Bentonite

Filter Pack: 20/40 Sand



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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG Well No. **GS-103** Page: 1 of 3

Seal Material(s):

Sch 40 PVC Slotted

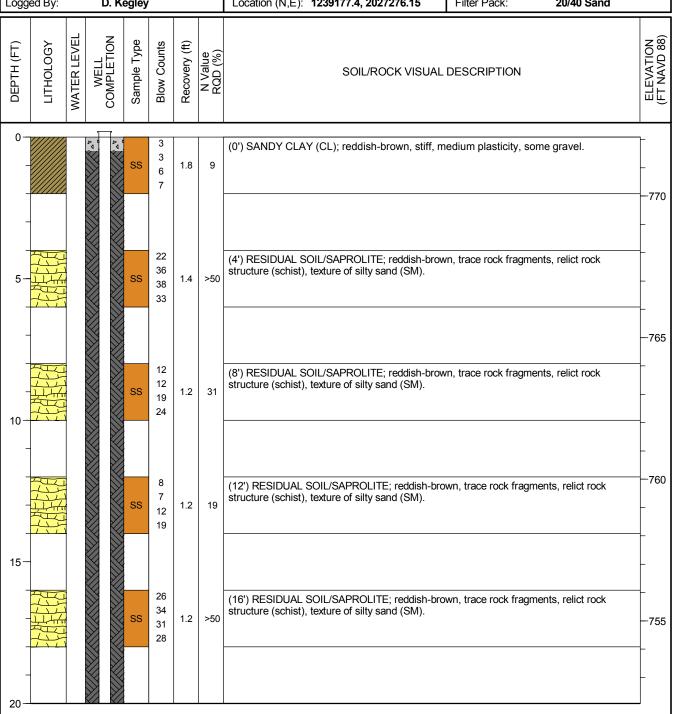
Grout/Bentonite

Drilling Start Date: 02/01/2022 Boring Depth (ft): 58 Well Depth (ft): 57.25 Drilling End Date: 02/02/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Screen Slot (in): SPT 0.010 **Drilling Company: Thompson Engineering** Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): 33.00 Riser Material: Sch 40 PVC

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 772.08 Screen Material:

Driller: P. Pitts Top of Casing Elev. (ft): 773.89

Logged By: D. Kegley Location (N,E): 1239177.4, 2027276.15 Filter Pack: 20/40 Sand



NOTES: Piezometer completed with aboveground PVC stickup.

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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG Well No. **GS-103**

Sch 40 PVC Slotted

Grout/Bentonite

Page: 2 of 3

Seal Material(s):

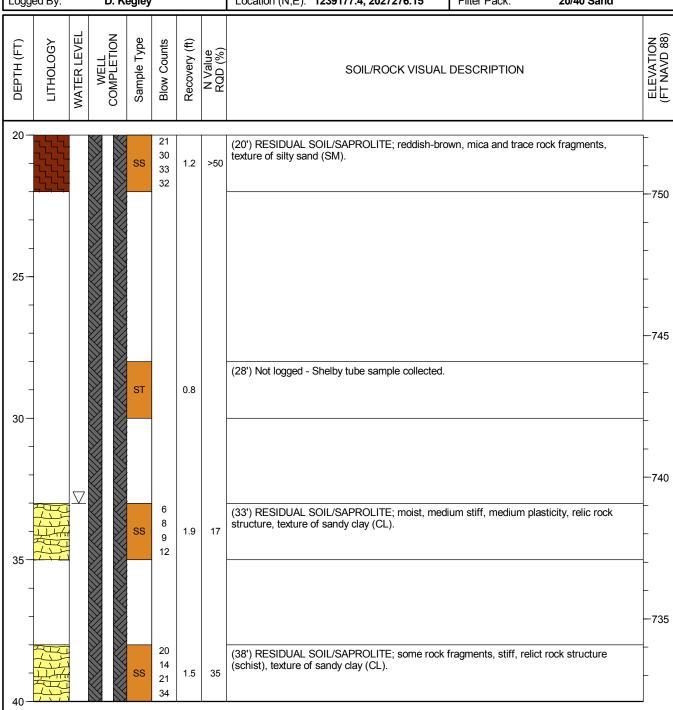
Drilling Start Date: 02/01/2022 Boring Depth (ft): 58 Well Depth (ft): 57.25 Drilling End Date: 02/02/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Screen Slot (in): Drilling Company: SPT 0.010 **Thompson Engineering** Sampling Method(s): Sch 40 PVC

Drilling Method: **Mud Rotary** DTW During Drilling (ft): 33.00 Riser Material: Screen Material:

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 772.08 Driller: P. Pitts Top of Casing Elev. (ft): 773.89

Logged By: D. Kegley

Location (N,E): 1239177.4, 2027276.15 Filter Pack: 20/40 Sand



NOTES: Piezometer completed with aboveground PVC stickup.

Geosyntec^D consultants

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. **GS-103**

Page: 3 of 3

Well Depth (ft): Drilling Start Date: 02/01/2022 Boring Depth (ft): 58 57.25 Drilling End Date: 02/02/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Screen Slot (in): Drilling Company: SPT 0.010 **Thompson Engineering** Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): 33.00

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 772.08

Driller: P. Pitts Top of Casing Elev. (ft): 773.89

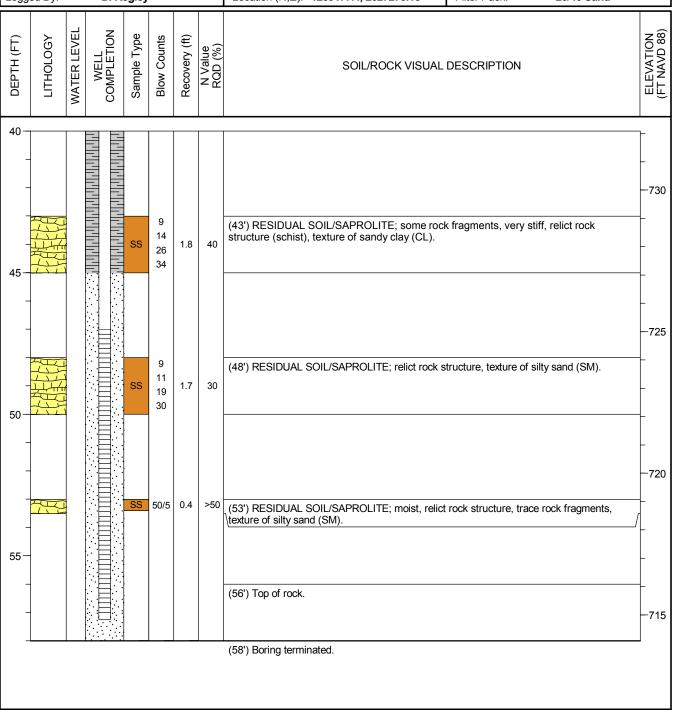
Logged By: D. Kegley Location (N,E): 1239177.4, 2027276.15

NOTES: Piezometer completed with aboveground PVC stickup.

Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted Seal Material(s): **Grout/Bentonite**

Filter Pack: 20/40 Sand



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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. **GS-104**

Page: 1 of 3

Drilling Start Date: 01/31/2022 Boring Depth (ft): 51 Well Depth (ft): 30.25 Drilling End Date: 02/01/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 SPT Screen Slot (in): 0.010 **Drilling Company: Thompson Engineering** Sampling Method(s):

Drilling Method: **Mud Rotary** DTW During Drilling (ft): 5.00

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 728.1

Driller: P. Pitts Top of Casing Elev. (ft): 732.55

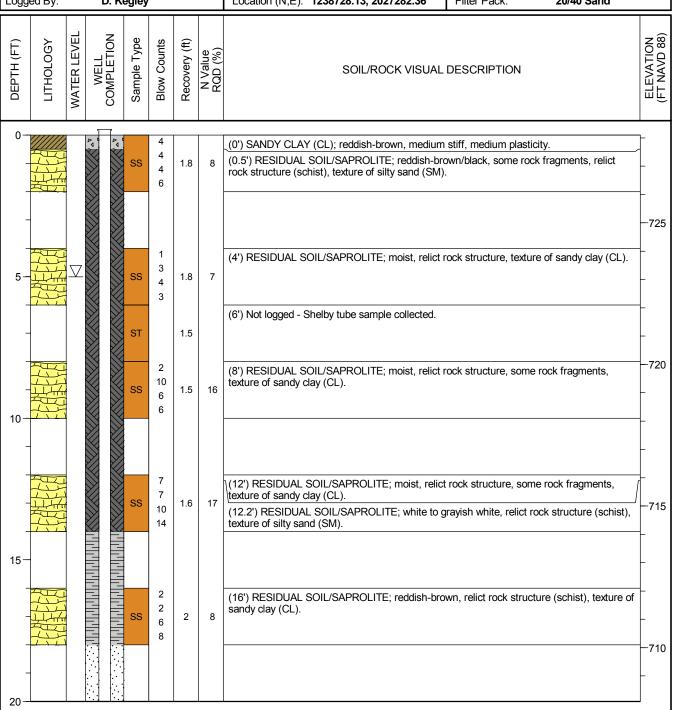
Logged By: D. Kegley Location (N,E): 1238728.13, 2027282.36 Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted

Grout/Bentonite

Filter Pack: 20/40 Sand

Seal Material(s):



NOTES: Borehole backfilled to 31 feet bgs with bentonite chips prior to installing piezometer. Piezometer completed with aboveground PVC stickup.

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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG Well No. **GS-104**

Page: 2 of 3

Drilling Start Date: 01/31/2022 Boring Depth (ft): 51 Well Depth (ft): 30.25 Drilling End Date: 02/01/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: SPT Screen Slot (in): 0.010 **Thompson Engineering** Sampling Method(s):

Drilling Method: **Mud Rotary** DTW During Drilling (ft): 5.00

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 728.1

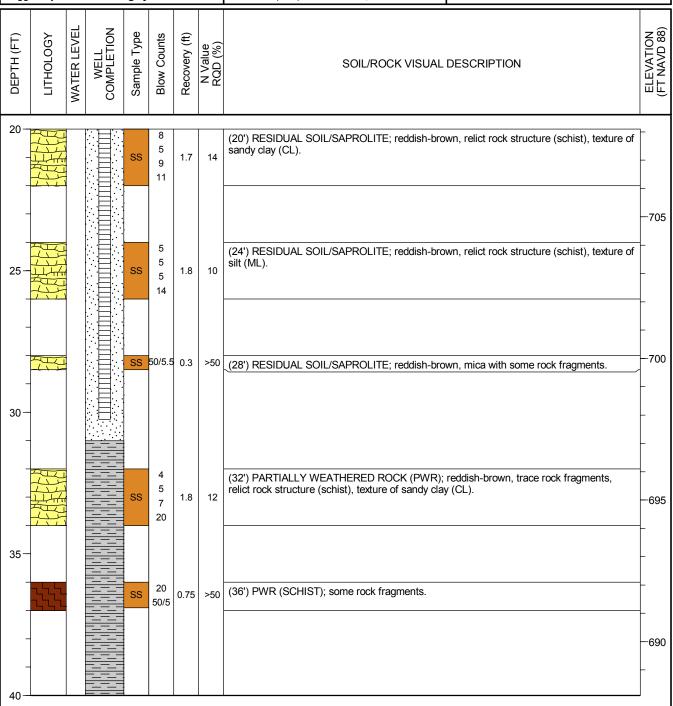
Driller: P. Pitts 732.55 Top of Casing Elev. (ft):

Logged By: D. Kegley Location (N,E): 1238728.13, 2027282.36

Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted Seal Material(s): Grout/Bentonite

Filter Pack: 20/40 Sand



NOTES: Borehole backfilled to 31 feet bgs with bentonite chips prior to installing piezometer. Piezometer completed with aboveground PVC stickup.



Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

3 of 3

Well No. **GS-104**

Page:

Well Depth (ft): Drilling Start Date: 01/31/2022 Boring Depth (ft): 51 30.25 Drilling End Date: 02/01/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 Screen Slot (in): Drilling Company: SPT 0.010 **Thompson Engineering** Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): 5.00

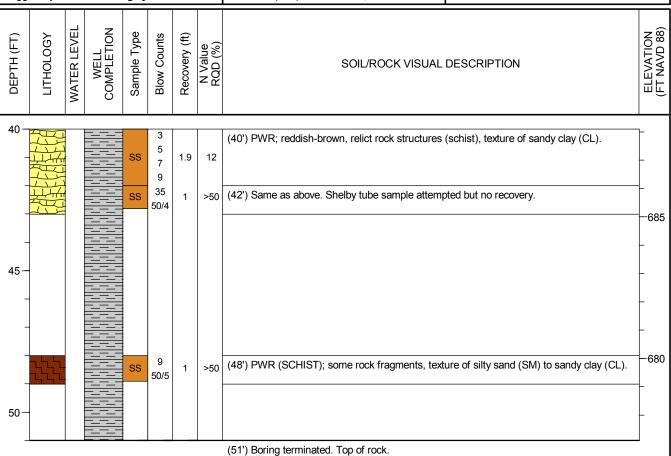
Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 728.1

Driller: P. Pitts 732.55 Top of Casing Elev. (ft):

Logged By: D. Kegley Location (N,E): 1238728.13, 2027282.36 Riser Material: Sch 40 PVC

Screen Material: Sch 40 PVC Slotted Seal Material(s): **Grout/Bentonite**

Filter Pack: 20/40 Sand



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20

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

NM

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG Well No. **GS-105**

Sch 40 PVC Slotted

Page: 1 of 2

Drilling Start Date: 02/04/2022 Boring Depth (ft): 21 Well Depth (ft): 18.25 Drilling End Date: 02/05/2022 Boring Diameter (in): 3.8 Well Diameter (in): 2 SPT Screen Slot (in): 0.010 **Drilling Company: Thompson Engineering** Sampling Method(s): Drilling Method: **Mud Rotary** DTW During Drilling (ft): Riser Material: Sch 40 PVC

Drilling Equipment: Dietrich D-50 Ground Surface Elev. (ft NAVD 88): 733.34

Driller: P. Pitts Top of Casing Elev. (ft): 735.65

Logged By: D. Kegley Location (N,E): 1238911.67, 2027727.21 Seal Material(s): Grout/Bentonite Filter Pack: 20/40 Sand

Screen Material:

WELL COMPLETION ELEVATION (FT NAVD 88) WATER LEVEL Sample Type Blow Counts DEPTH (FT) LITHOLOGY Recovery (ft) N Value RQD (%) SOIL/ROCK VISUAL DESCRIPTION (0') SANDY CLAY (CL); reddish-brown, moist, soft, medium plasticity, trace gravel, trace 2 organics. SS 5 3 3 -730 5 (4') RESIDUAL SOIL/SAPROLITE; some rock fragments, relict rock structures (schist), 5 texture of sandy clay (CL). 15 1.5 10 (6') Not logged - Shelby tube sample collected. ST 1.25 6 (8') RESIDUAL SOIL/SAPROLITE; reddish-brown to whitish brown, relict rock 725 15 (feldspar-rich), some gravel, texture of silty sand (SM). 1.1 25 10 15 9 (12') RESIDUAL SOIL/SAPROLITE. SS 24 1.5 >50 50/6 -720 (14') Top of rock. 15 715

NOTES: Borehole backfilled to 19 feet bgs with native material prior to installing piezometer. Piezometer completed with aboveground PVC stickup.



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

WELL LOG

Well No. GS-105 Page: 2 of 2

02/04/2022 Well Depth (ft): 18.25 Drilling Start Date: Boring Depth (ft): 21 02/05/2022 Drilling End Date: Boring Diameter (in): 3.8 Well Diameter (in): 2 Drilling Company: **Thompson Engineering** Sampling Method(s): **SPT** Screen Slot (in): 0.010 Drilling Method: **Mud Rotary** DTW During Drilling (ft): NM

Drilling Equipment: **Dietrich D-50** Ground Surface Elev. (ft NAVD 88): **733.34** Screen Materi

Driller: P. Pitts Top of Casing Elev. (ft): 735.65

Logged By: D. Kegley Location (N,E): 1238911.67, 2027727.21

cation (N,E): 1238911.67, 2027727.21 Filter Pack: 20/40 Sand

Riser Material: Sch 40 PVC
Screen Material: Sch 40 PVC Slotted
Seal Material(s): Grout/Bentonite

							-	
DEPTH (FT)	OLOG	WATER LEVEL WELL COMPLETION	Sample Type	Blow Counts	Recovery (ft)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	ELEVATION (FT NAVD 88)
20 –			Ç					<u> </u>
		30020	ď					

(21') Boring terminated.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-106 Page: 1 of 5

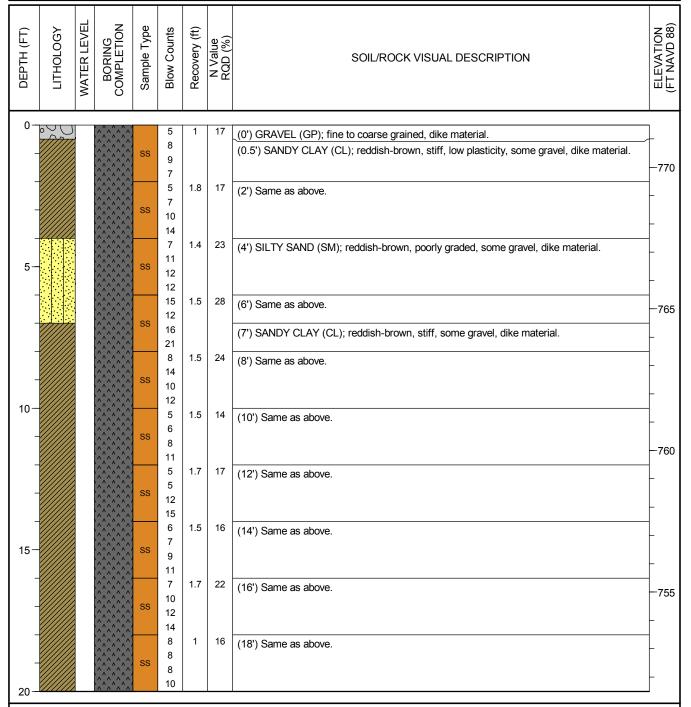
Drilling Start Date: 12/19/2021 Boring Depth (in): 93
Drilling End Date: 12/19/2021 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 771.49

 Logged By:
 D. Kegley
 Location (N,E): 1238423.69, 2026475.03



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-106

Page: 2 of 5

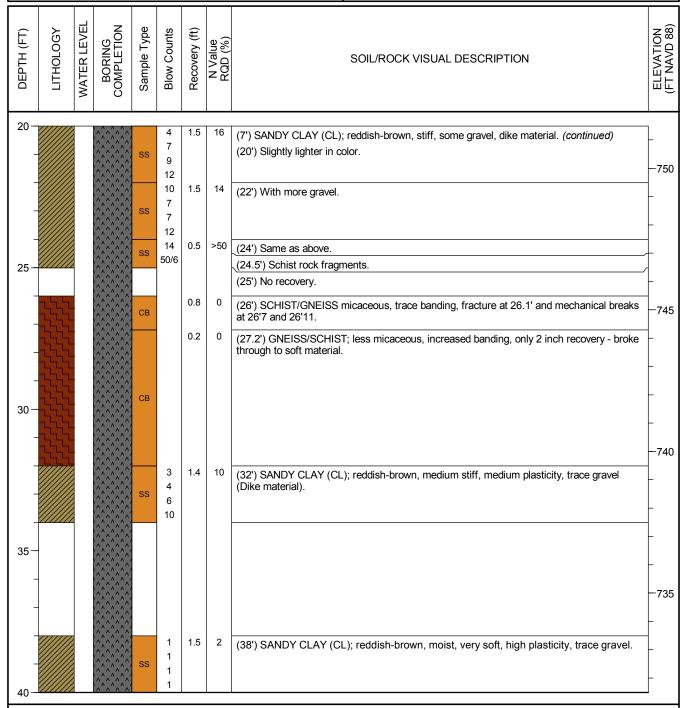
Drilling Start Date: 12/19/2021 Boring Depth (in): 93
Drilling End Date: 12/19/2021 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 771.49

 Logged By:
 D. Kegley
 Location (N,E): 1238423.69, 2026475.03



NOTES: SPT sampler driven from 26-26.6 hit refusal (blows = 19, 50/1.5; no recovery) before switching to core barrel. Boring backfilled to ground surface with cement/bentonite grout.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-106 Page: 3 of 5

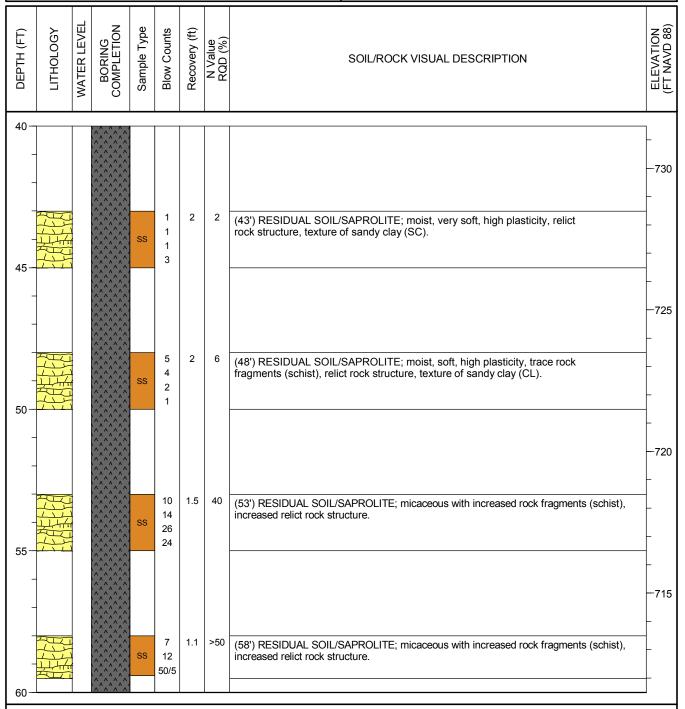
Drilling Start Date: 12/19/2021 Boring Depth (in): 93
Drilling End Date: 12/19/2021 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 771.49

 Logged By:
 D. Kegley
 Location (N,E): 1238423.69, 2026475.03



NOTES: SPT sampler driven from 26-26.6 hit refusal (blows = 19, 50/1.5; no recovery) before switching to core barrel. Boring backfilled to ground surface with cement/bentonite grout.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-106 Page: 4 of 5

Drilling Start Date: 12/19/2021

Drilling End Date: **12/19/2021**

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary

Drilling Equipment: Dietrich D-50

Driller: P. Pitts

Logged By: D. Kegley

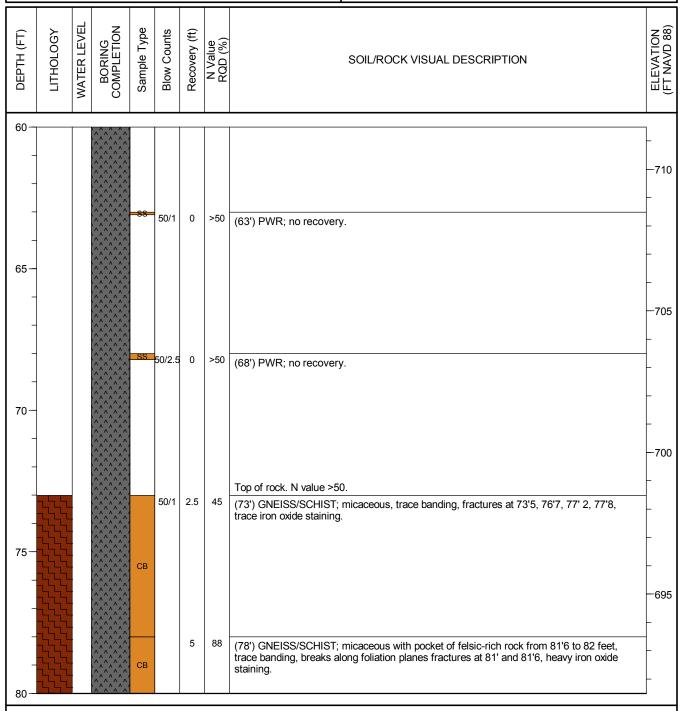
Boring Depth (in): 93

Boring Diameter (in): 3.8

Sampling Method(s): SPT, Core Barrel

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **771.49**Location (N,E): **1238423.69, 2026475.03**



NOTES: SPT sampler driven from 26-26.6 hit refusal (blows = 19, 50/1.5; no recovery) before switching to core barrel. Boring backfilled to ground surface with cement/bentonite grout.



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-106 Page: 5 of 5

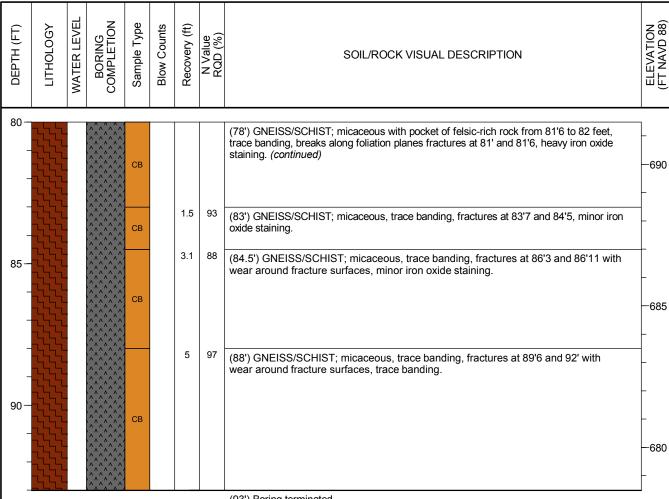
Drilling Start Date: 12/19/2021 Boring Depth (in): 93
Drilling End Date: 12/19/2021 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 771.49

 Logged By:
 D. Kegley
 Location (N,E): 1238423.69, 2026475.03



(93') Boring terminated.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-107 Page: 1 of 5

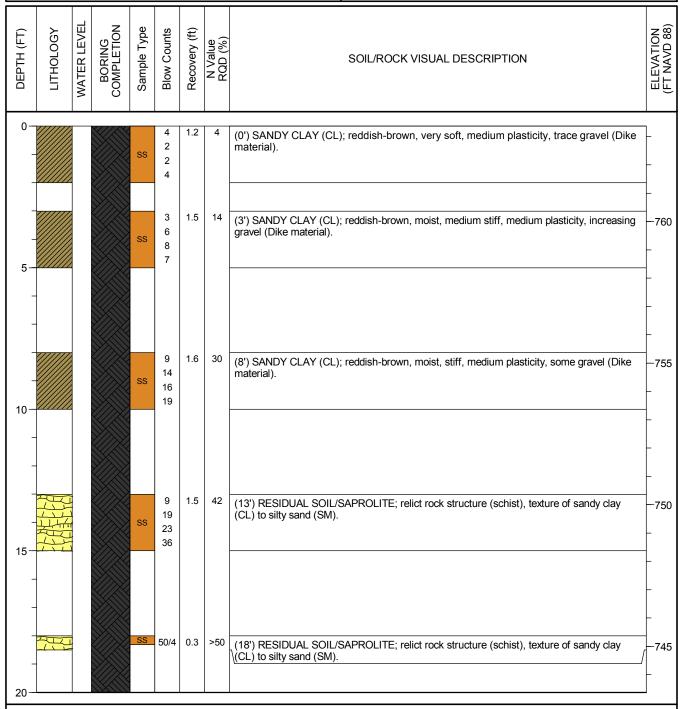
Drilling Start Date: 02/10/2022 Boring Depth (in): 87
Drilling End Date: 02/10/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 763.37

 Logged By:
 D. Kegley
 Location (N,E): 1238066.27, 2026599.33



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-107

Page: 2 of 5

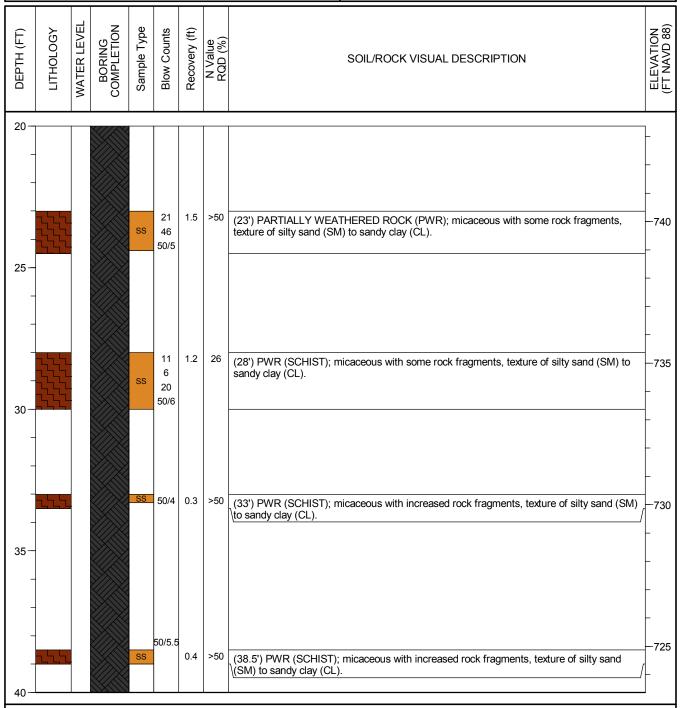
Drilling Start Date: 02/10/2022 Boring Depth (in): 87
Drilling End Date: 02/10/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 763.37

 Logged By:
 D. Kegley
 Location (N,E): 1238066.27, 2026599.33





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-107 Page: 3 of 5

Drilling Start Date: 02/10/2022

Drilling End Date: 02/10/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

Driller: P. Pitts
Logged By: D. Kegley

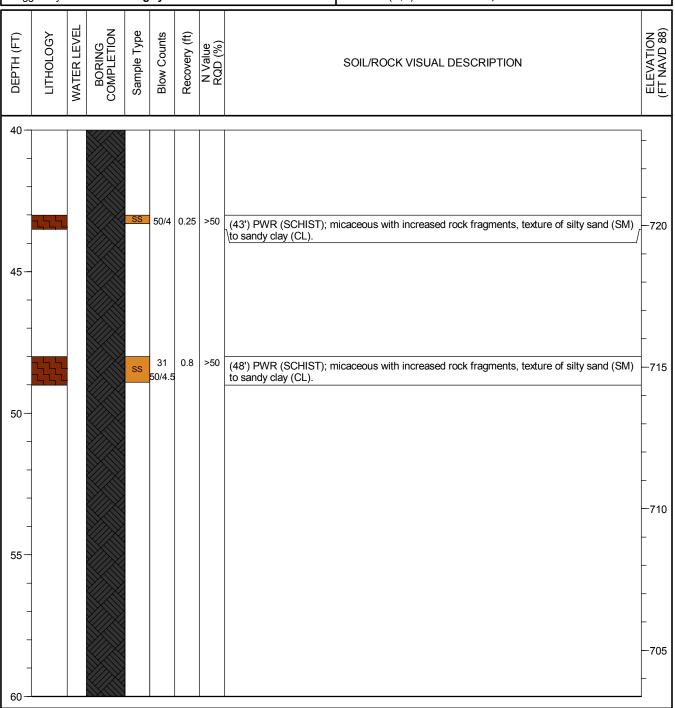
Boring Depth (in): 87

Boring Diameter (in): 3.8

Sampling Method(s): SPT, Core Barrel

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **763.37** Location (N,E): **1238066.27**, **2026599.33**



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-107 Page: 4 of 5

Drilling Start Date: 02/10/2022 Boring Depth (in): 87

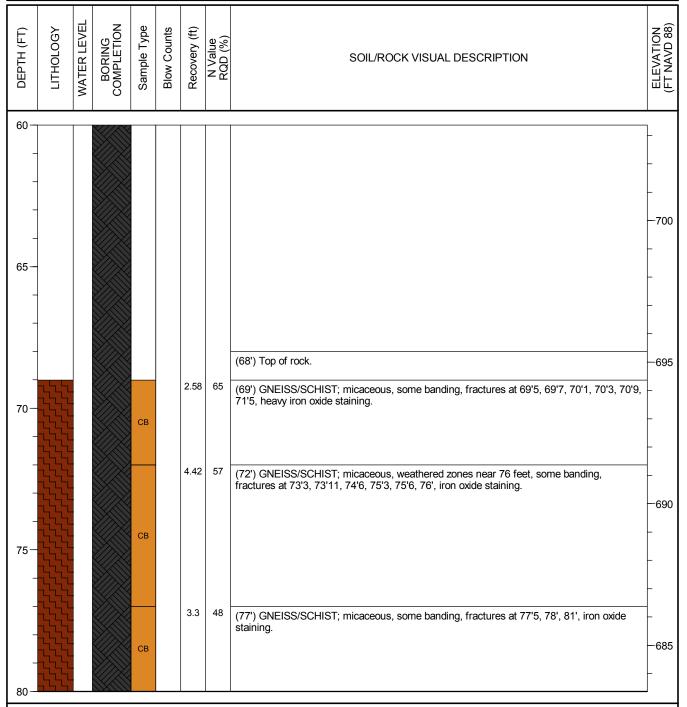
Drilling End Date: 02/10/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 763.37

 Logged By:
 D. Kegley
 Location (N,E):
 1238066.27, 2026599.33





Client: **Southern Company Services**

Plant Wansley Landfill Expansion Investig. Project:

Address: 1371 Liberty Church Rd, Carrollton, GA

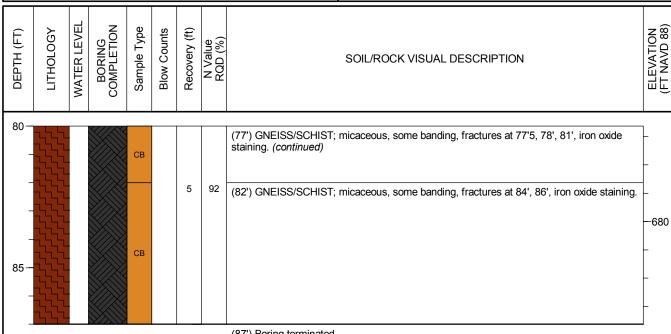
BORING LOG Boring No. GS-107 Page: 5 of 5

02/10/2022 87 Drilling Start Date: Boring Depth (in): 3.8 02/10/2022 Drilling End Date: Boring Diameter (in):

SPT, Core Barrel Drilling Company: **Thompson Engineering** Sampling Method(s):

NA Drilling Method: **Mud Rotary** DTW During Drilling (ft): NA Drilling Equipment: Dietrich D-50 DTW After Drilling (ft):

Driller: P. Pitts Ground Surface Elev. (ft NAVD 88): 763.37 Logged By: D. Kegley Location (N,E): 1238066.27, 2026599.33



(87') Boring terminated.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-108 Page: 1 of 2

32

Drilling Start Date: 02/13/2022 Boring Depth (in):

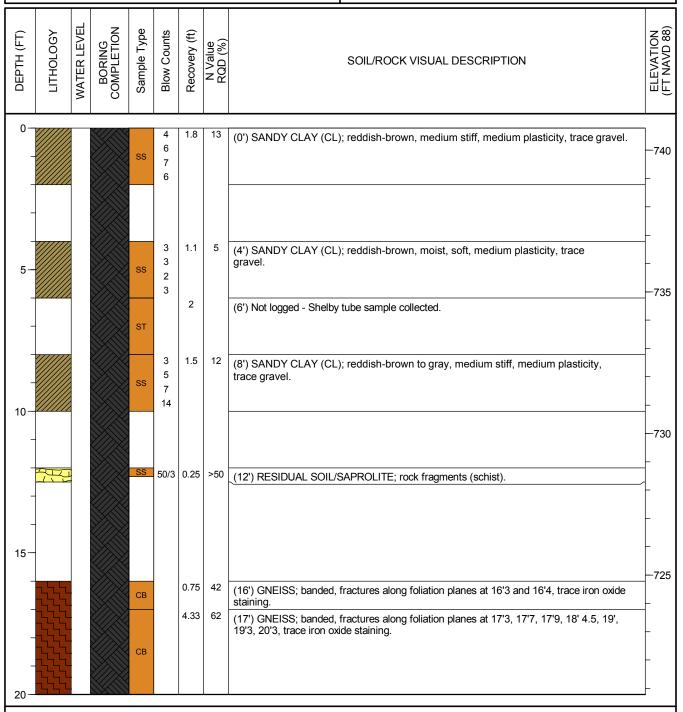
Drilling End Date: 02/13/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 740.78

 Logged By:
 D. Kegley
 Location (N,E): 1237995.22, 2027139.68





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-108

Page: 2 of 2

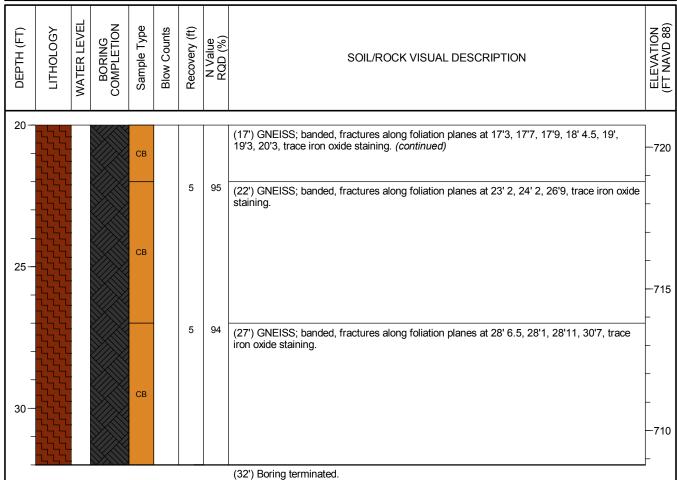
Drilling Start Date: 02/13/2022 Boring Depth (in): 32
Drilling End Date: 02/13/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT, Core Barrel

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 740.78

 Logged By:
 D. Kegley
 Location (N,E): 1237995.22, 2027139.68





Dietrich D-50

Drilling Equipment:

Client: **Southern Company Services**

Plant Wansley Landfill Expansion Investig. Project:

DTW After Drilling (ft):

Address: 1371 Liberty Church Rd, Carrollton, GA

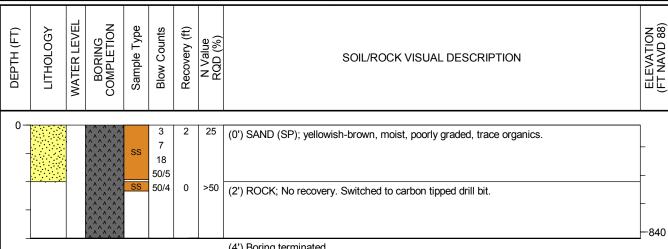
BORING LOG Boring No. GS-109 Page: 1 of 1

NA

12/18/2021 Drilling Start Date: Boring Depth (in): 3.8 12/18/2021 Drilling End Date: Boring Diameter (in):

SPT Drilling Company: **Thompson Engineering** Sampling Method(s): NA Drilling Method: **Mud Rotary** DTW During Drilling (ft):

Driller: P. Pitts Ground Surface Elev. (ft NAVD 88): 843.77 Logged By: D. Kegley Location (N,E): 1238291.65, 2025182.74



(4') Boring terminated.

NOTES:

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-110 Page: 1 of 3

Drilling Start Date: 01/19/2022 Boring Depth (in): 52.5

Drilling End Date: 01/21/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT
Drilling Method: Mud Rotary DTW During Drilling (ft): NA

Drilling Equipment: Dietrich D-50

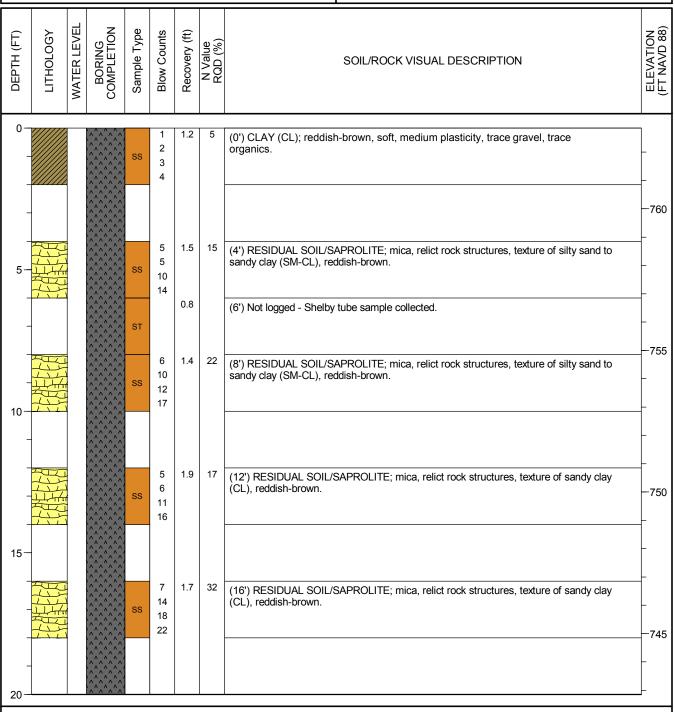
DTW After Drilling (ft): NA

Driller: P Pitts

Ground Surface Fley (ft NAVD 88):

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 762.85

 Logged By:
 D. Kegley
 Location (N,E): 1239184.73, 2026897.73



engineers | scientists | innovators

Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-110
Page: 2 of 3

Drilling Start Date: **01/19/2022**Drilling End Date: **01/21/2022**

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

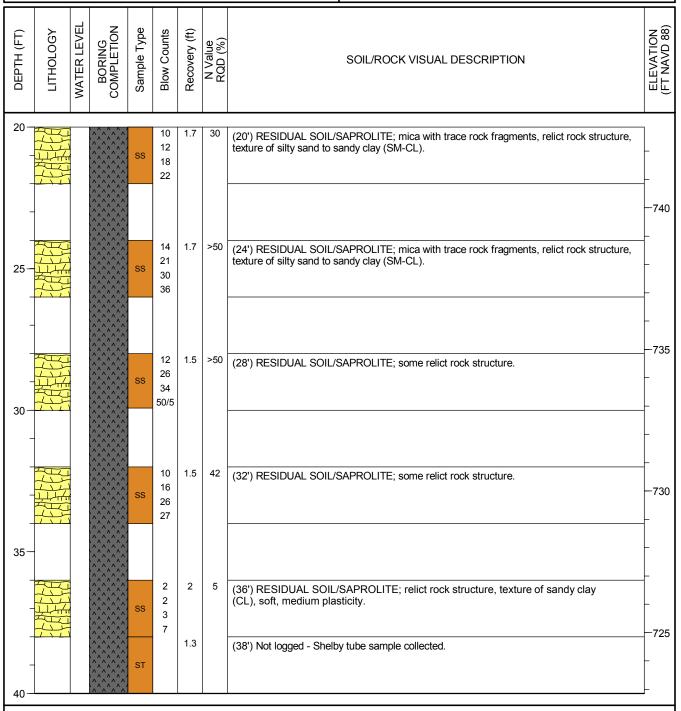
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 52.5

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **762.85**Location (N,E): **1239184.73**, **2026897.73**





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-110
Page: 3 of 3

Drilling Start Date: 01/19/2022

Drilling End Date: 01/21/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 52.5

Boring Diameter (in): 3.8
Sampling Method(s): SPT

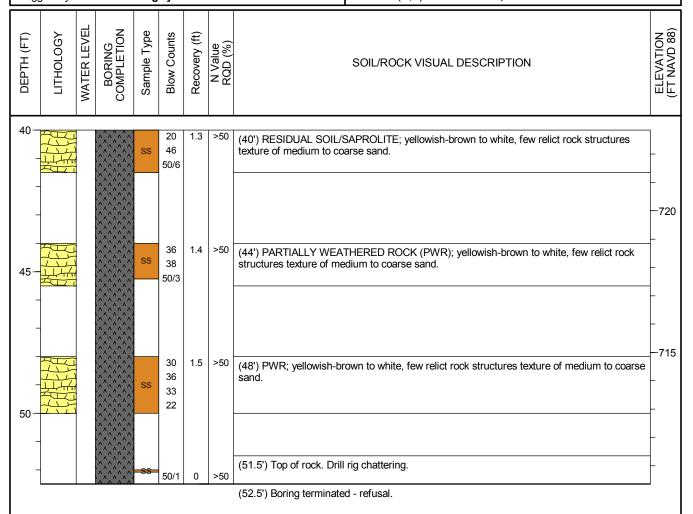
DTW During Drilling (ft): NA

DTW After Drilling (ft):

Ground Surface Elev. (ft NAVD 88): 762.85

Location (N,E): 1239184.73, 2026897.73

NA



Geosyntec[▶] consultants

Dietrich D-50

Drilling Equipment:

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

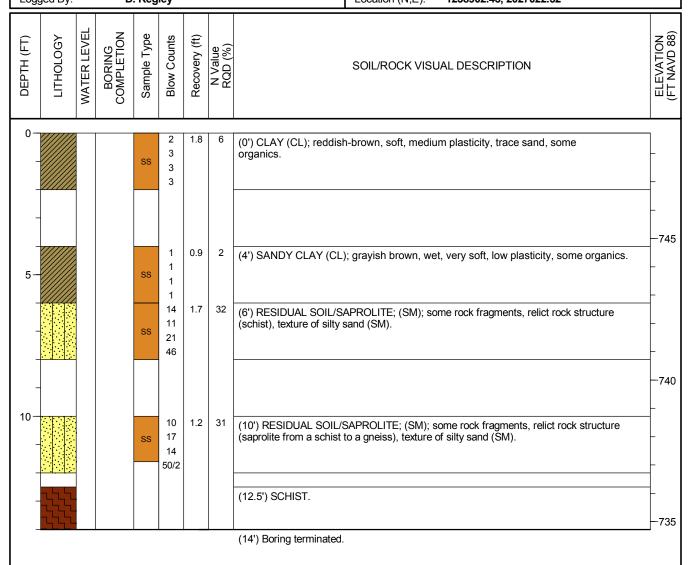
DTW After Drilling (ft):

NA

BORING LOG Boring No. GS-111 Page: 1 of 1

14 Drilling Start Date: 01/23/2022 Boring Depth (in): 3.8 Drilling End Date: 01/23/2022 Boring Diameter (in): **SPT Thompson Engineering Drilling Company:** Sampling Method(s): NA Drilling Method: **Mud Rotary** DTW During Drilling (ft):

Driller: P. Pitts Ground Surface Elev. (ft NAVD 88): 748.72 Logged By: D. Kegley Location (N,E): 1238902.43, 2027022.52



Dietrich D-50

NOTES: Boring backfilled to ground surface with cement/bentonite grout.

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Drilling Equipment:

Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

DTW After Drilling (ft):

Address: 1371 Liberty Church Rd, Carrollton, GA

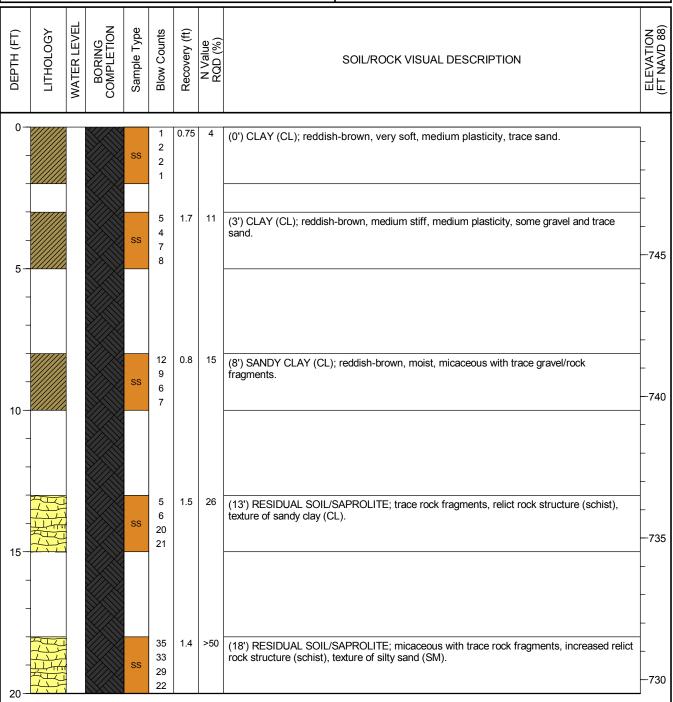
BORING LOG Boring No. GS-112 Page: 1 of 3

NA

49 Drilling Start Date: 02/15/2022 Boring Depth (in): 3.8 **Drilling End Date:** 02/15/2022 Boring Diameter (in): SPT **Drilling Company: Thompson Engineering** Sampling Method(s): NA Drilling Method: **Mud Rotary** DTW During Drilling (ft):

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 749.51

 Logged By:
 D. Kegley
 Location (N,E): 1239385.49, 2027706.4



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-112
Page: 2 of 3

Drilling Start Date:02/15/2022Boring Depth (in):49Drilling End Date:02/15/2022Boring Diameter (in):3.8

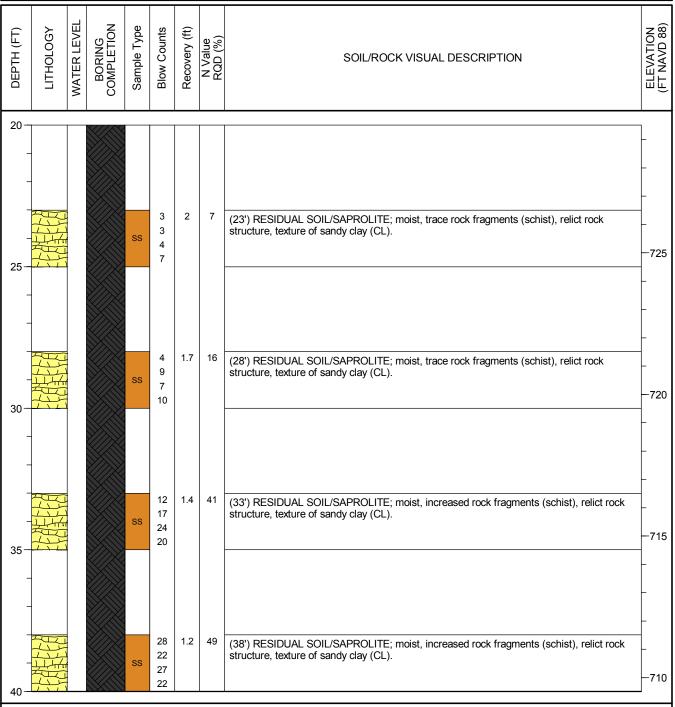
Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA

Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 749.51

 Logged By:
 D. Kegley
 Location (N,E): 1239385.49, 2027706.4





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-112
Page: 3 of 3

Drilling Start Date: 02/15/2022 Boring Depth (in): 49
Drilling End Date: 02/15/2022 Boring Diameter (in): 3.8

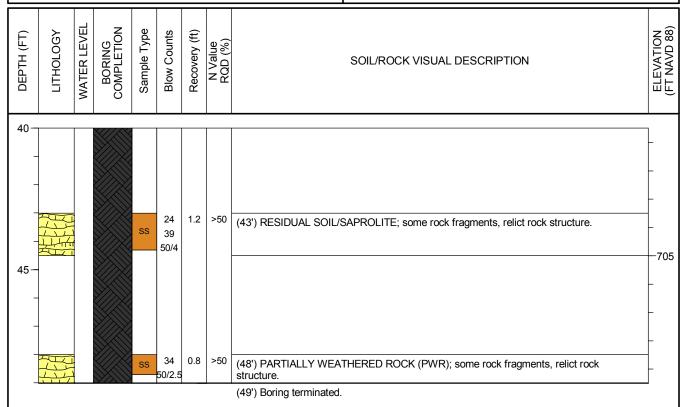
Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA

Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 749.51

 Logged By:
 D. Kegley
 Location (N,E): 1239385.49, 2027706.4



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-113 Page: 1 of 3

Drilling Start Date: 12/19/2021

Drilling End Date: 12/20/2021

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

Driller: P. Pitts
Logged By: D. Kegley

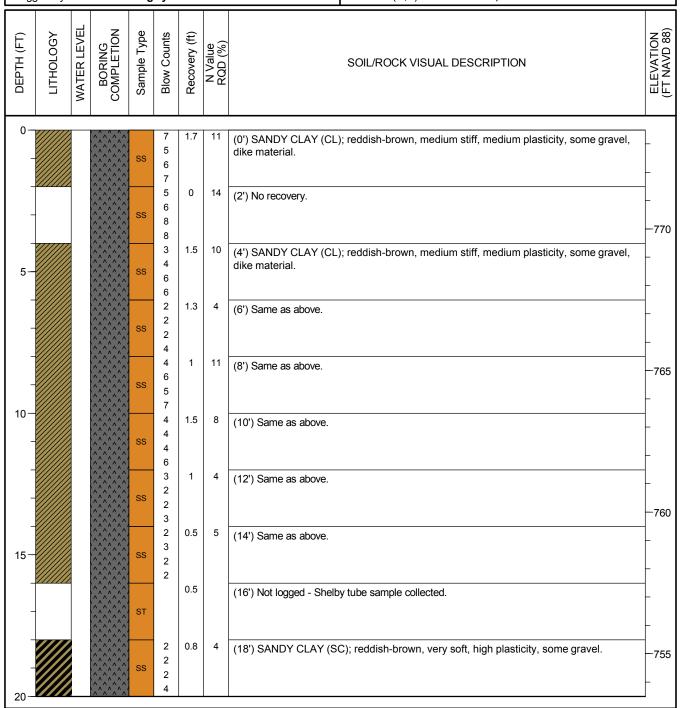
NOTES:

Boring Depth (in): 48

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **773.49** Location (N,E): **1237517.37**, **2026560.25**



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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-113 Page: 2 of 3

Drilling Start Date: 12/19/2021

Drilling End Date: 12/20/2021

Drilling Company: Thompson Engineering

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50

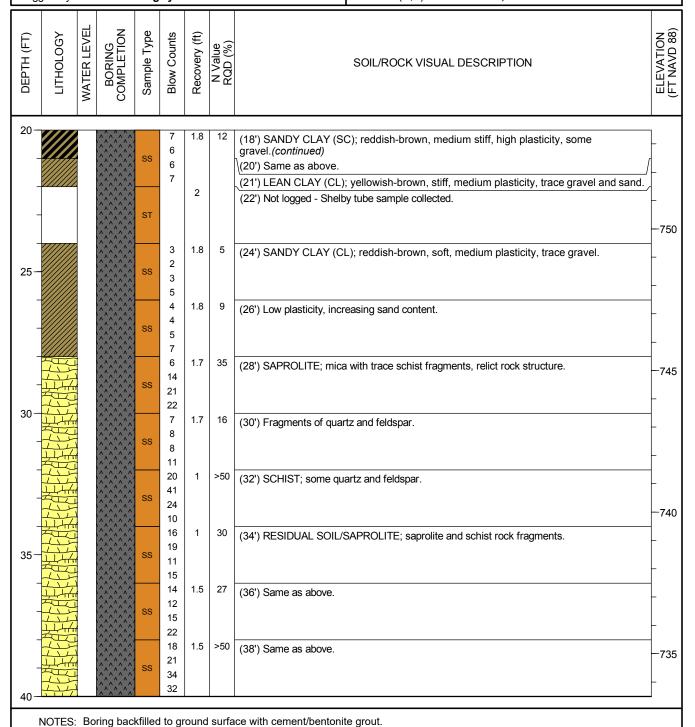
Driller: P. Pitts Logged By: D. Kegley

48 Boring Depth (in):

3.8 Boring Diameter (in): SPT Sampling Method(s):

NA DTW During Drilling (ft): DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): 773.49 Location (N,E): 1237517.37, 2026560.25





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-113

Page: 3 of 3

Drilling Start Date: 12/19/2021 Boring Depth (in): 48

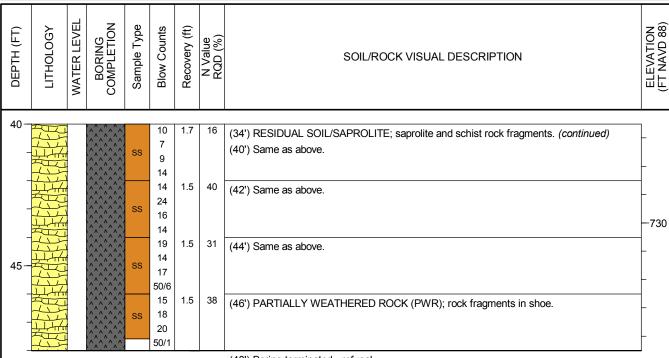
Drilling End Date: 12/20/2021 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 773.49

 Logged By:
 D. Kegley
 Location (N,E): 1237517.37, 2026560.25



(48') Boring terminated - refusal.

engineers | scientists | innovators

Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-114
Page: 1 of 2

Drilling Start Date: 01/04/2022

Drilling End Date: 01/04/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

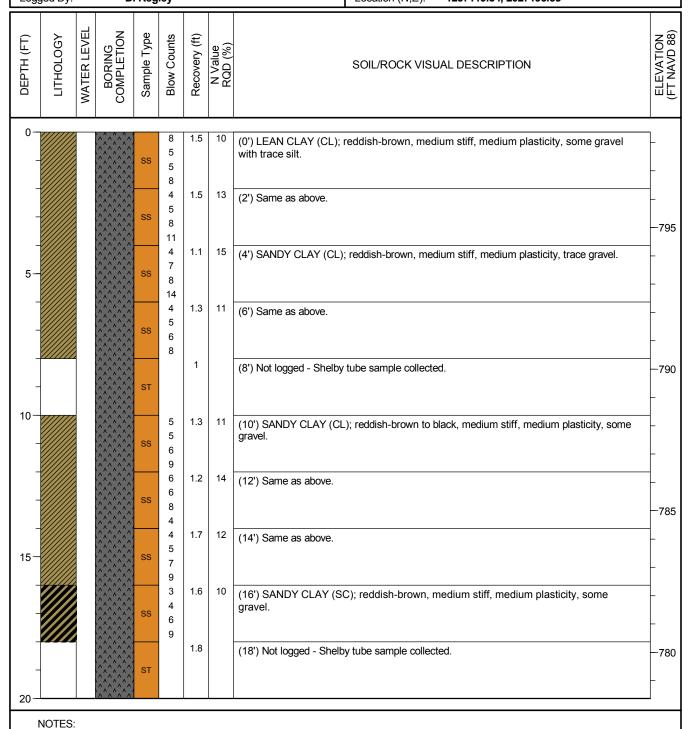
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 25.5

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **798.37** Location (N,E): **1237119.34**, **2027195.35**





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-114
Page: 2 of 2

25.5

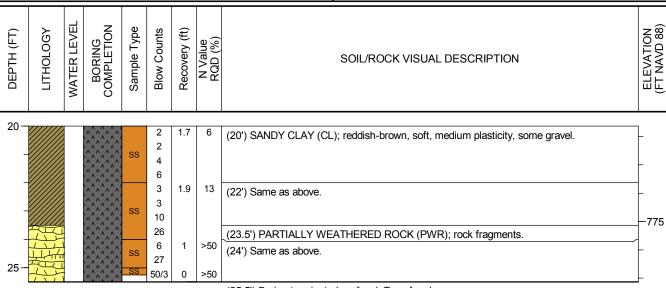
3.8

Drilling Start Date: 01/04/2022 Boring Depth (in):
Drilling End Date: 01/04/2022 Boring Diameter (in):

Drilling Company: Thompson Engineering Sampling Method(s): SPT
Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 798.37

 Logged By:
 D. Kegley
 Location (N,E): 1237119.34, 2027195.35



(25.5') Boring terminated - refusal. Top of rock.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-115 Page: 1 of 4

Drilling Start Date: 01/09/2022

Drilling End Date: 01/09/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

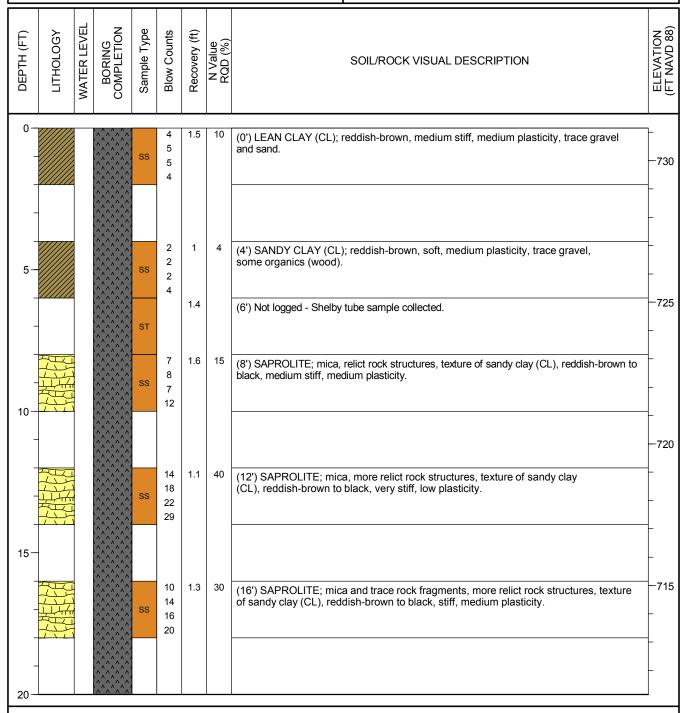
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 63

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **731.15**Location (N,E): **1238263.98**, **2029556.4**



Geosyntec^D consultants

Dietrich D-50

Drilling Equipment:

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

DTW After Drilling (ft):

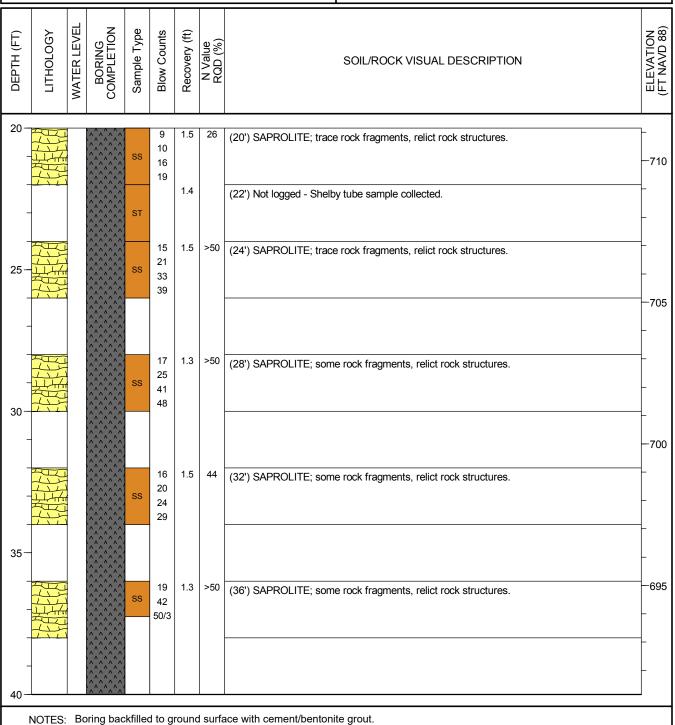
BORING LOG Boring No. GS-115 2 of 4 Page:

NA

01/09/2022 63 Drilling Start Date: Boring Depth (in): 3.8 Drilling End Date: 01/09/2022 Boring Diameter (in):

SPT Thompson Engineering Sampling Method(s): **Drilling Company:** NA Drilling Method: **Mud Rotary** DTW During Drilling (ft):

Driller: P. Pitts Ground Surface Elev. (ft NAVD 88): 731.15 Logged By: D. Kegley Location (N,E): 1238263.98, 2029556.4



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-115 Page: 3 of 4

Drilling Start Date: 01/09/2022

Drilling End Date: 01/09/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

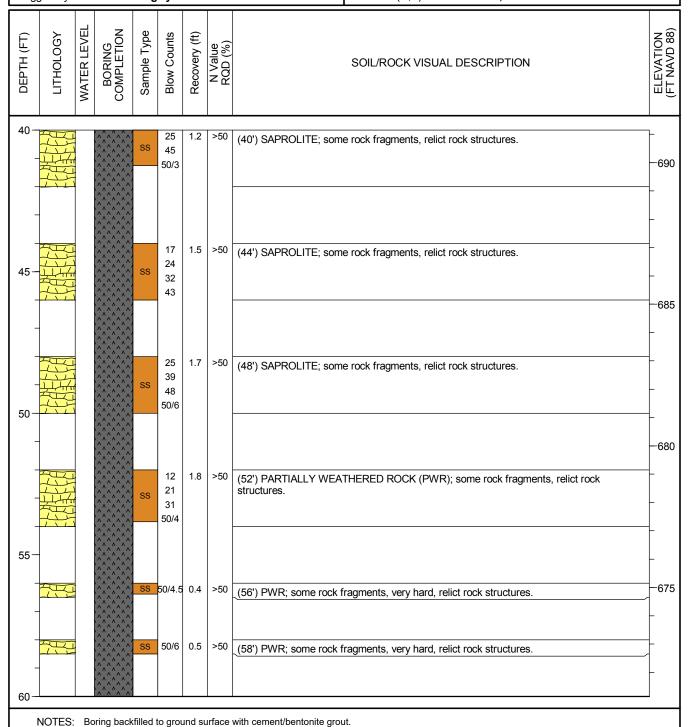
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 63

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **731.15** Location (N,E): **1238263.98**, **2029556.4**





Client: **Southern Company Services**

Plant Wansley Landfill Expansion Investig. Project: Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-115 4 of 4 Page:

01/09/2022 Drilling Start Date: 01/09/2022 Drilling End Date:

Drilling Company: **Thompson Engineering**

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50 Driller: P. Pitts

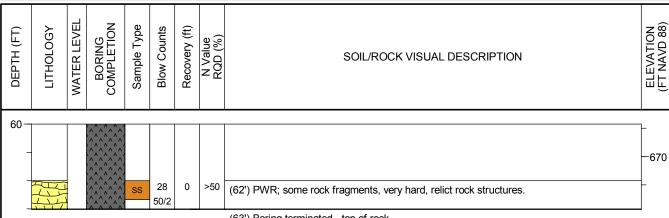
Logged By: D. Kegley

63 Boring Depth (in):

3.8 Boring Diameter (in): SPT Sampling Method(s):

NA DTW During Drilling (ft): NA DTW After Drilling (ft):

Ground Surface Elev. (ft NAVD 88): 731.15 Location (N,E): 1238263.98, 2029556.4



(63') Boring terminated - top of rock.

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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-116 Page: 1 of 4

Drilling Start Date: 01/05/2022 Drilling End Date: 01/05/2022

Drilling Company: Thompson Engineering

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50

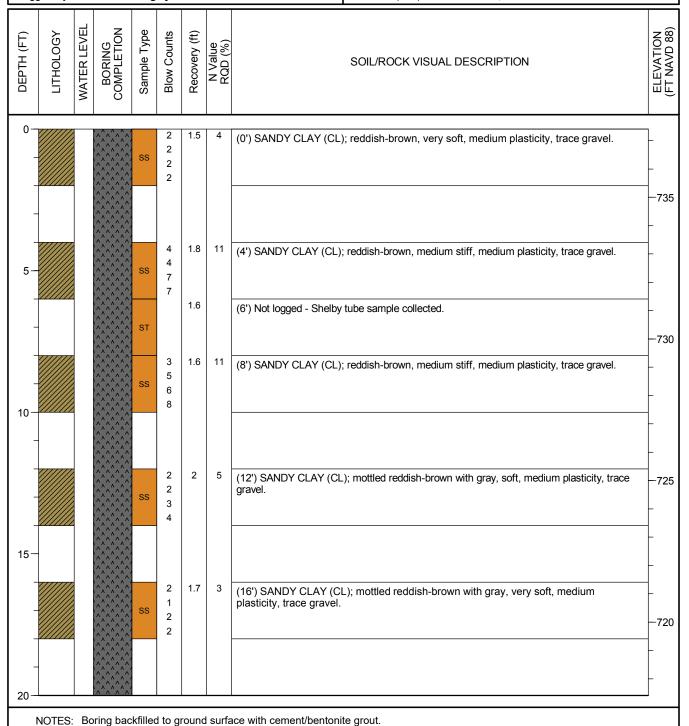
Driller: P. Pitts Logged By: D. Kegley

61 Boring Depth (in):

3.8 Boring Diameter (in): SPT Sampling Method(s):

NA DTW During Drilling (ft): DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): 737.41 Location (N,E): 1236324.83, 2028421.85



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-116 Page: 2 of 4

Drilling Start Date: 01/05/2022

Drilling End Date: 01/05/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

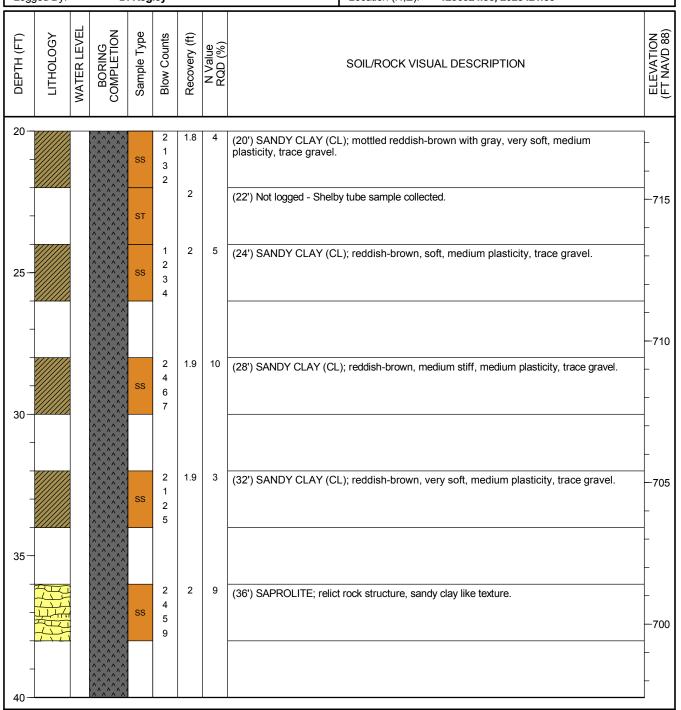
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 61

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **737.41**Location (N,E): **1236324.83**, **2028421.85**



Geosyntec[▶] consultants

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-116 3 of 4 Page:

01/05/2022 Drilling Start Date:

Drilling End Date: 01/05/2022 Drilling Company: **Thompson Engineering**

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50

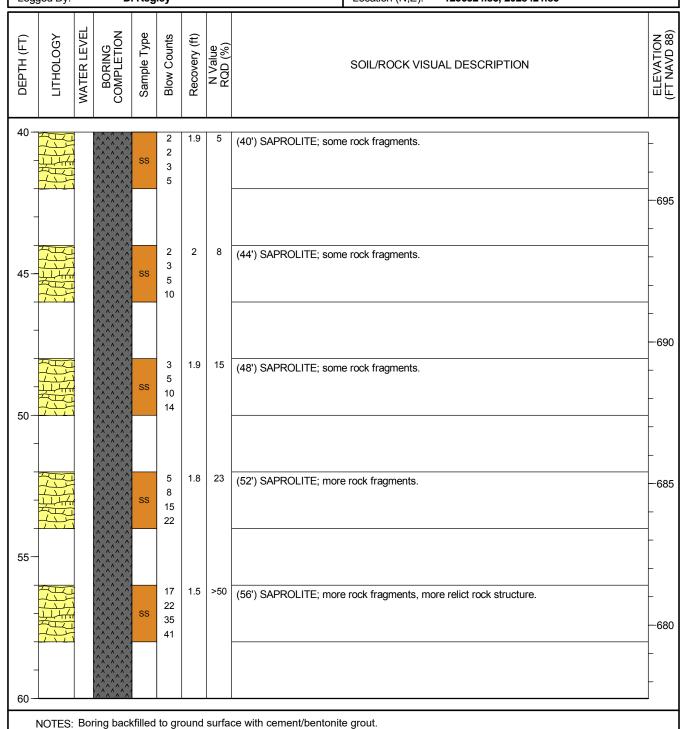
Driller: P. Pitts Logged By: D. Kegley

61 Boring Depth (in):

3.8 Boring Diameter (in): **SPT** Sampling Method(s):

NA DTW During Drilling (ft): NA DTW After Drilling (ft):

Ground Surface Elev. (ft NAVD 88): 737.41 Location (N,E): 1236324.83, 2028421.85





Client: **Southern Company Services**

Plant Wansley Landfill Expansion Investig. Project:

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-116 Page: 4 of 4

01/05/2022 Drilling Start Date: 01/05/2022 Drilling End Date: Drilling Company: **Thompson Engineering**

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50 Driller: P. Pitts

Logged By: D. Kegley

61 Boring Depth (in):

3.8 Boring Diameter (in): SPT Sampling Method(s):

NA DTW During Drilling (ft): NA DTW After Drilling (ft):

Ground Surface Elev. (ft NAVD 88): 737.41 Location (N,E): 1236324.83, 2028421.85

ОЕРТН (FT)	LITHOLOGY	ING ETIO	Sample Type	Blow Counts	Recovery (ft) N Value	SOIL/ROCK VISUAL DESCRIPTION	ELEVATION (FT NAVD 88)
------------	-----------	-------------	-------------	-------------	------------------------	------------------------------	---------------------------

50/6

(60') SAPROLITE; more rock fragments, more relict rock structure, rock fragments in bottom of spoon.

(61') Boring terminated - refusal. Top of rock.

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Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

Boring No. GS-117 Page: 1 of 3

BORING LOG

Drilling Start Date: 01/06/2022

Drilling End Date: 01/06/2022

Drilling Company: Thompson Engineering

Drilling Method: **Mud Rotary** Drilling Equipment: Dietrich D-50

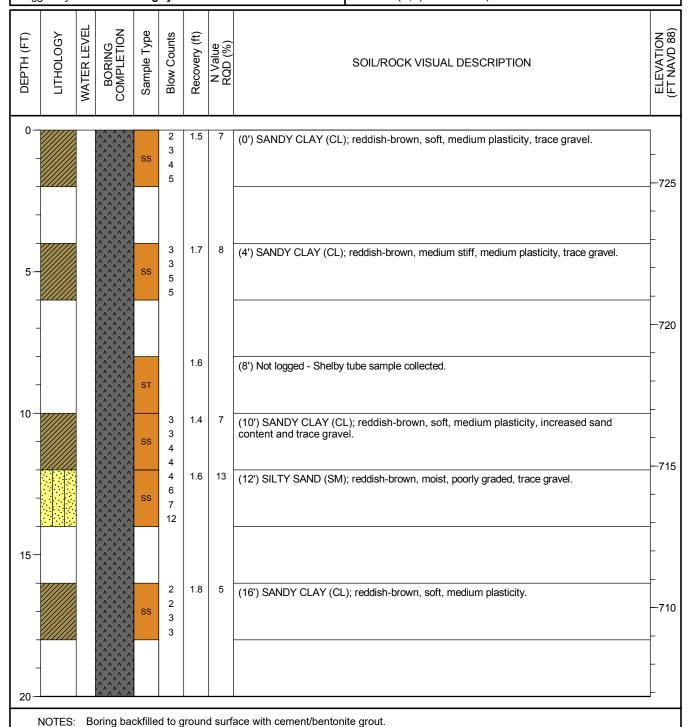
Driller: P. Pitts Logged By: D. Kegley

44 Boring Depth (in):

3.8 Boring Diameter (in): **SPT** Sampling Method(s):

NA DTW During Drilling (ft): DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): 726.86 Location (N,E): 1236448, 2028775.97



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-117
Page: 2 of 3

Drilling Start Date: 01/06/2022 Boring Depth (in): 44

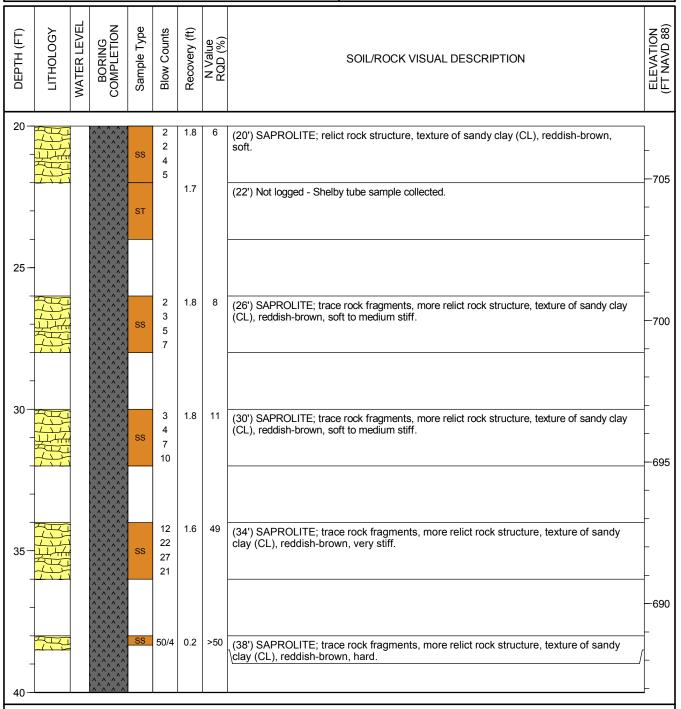
Drilling End Date: 01/06/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 726.86

 Logged By:
 D. Kegley
 Location (N,E): 1236448, 2028775.97





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-117
Page: 3 of 3

 Drilling Start Date:
 01/06/2022

 Drilling End Date:
 01/06/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

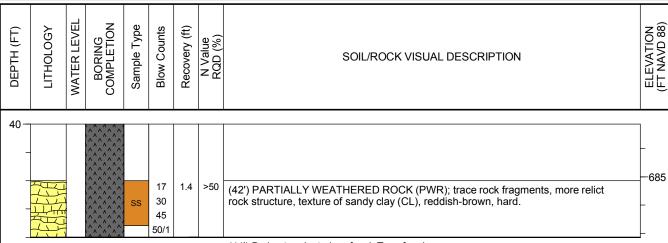
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 44

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **726.86**Location (N,E): **1236448**, **2028775.97**



(44') Boring terminated - refusal. Top of rock.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG
Boring No. GS-118
Page: 1 of 2

Drilling Start Date: 02/18/2022

Drilling End Date: 02/18/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

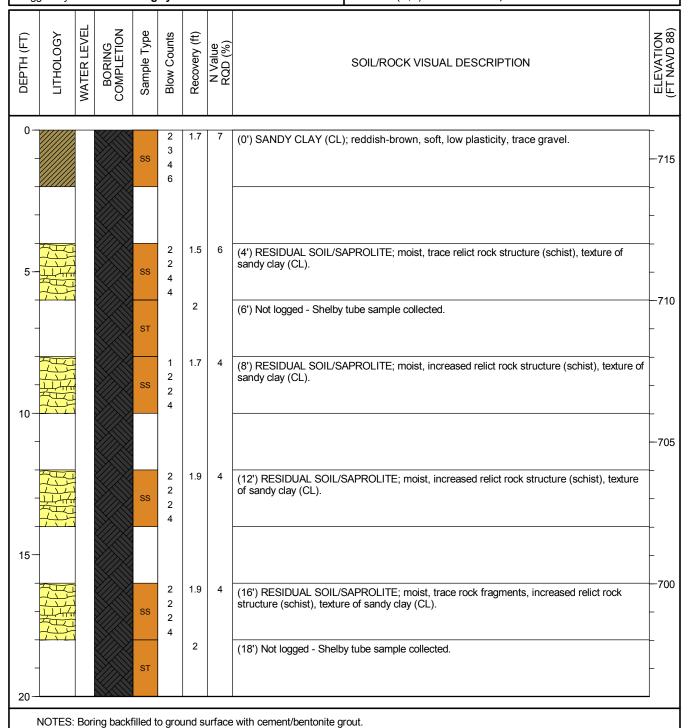
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 32

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **716.02**Location (N,E): **1236256.81**, **2029170.14**





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-118 Page: 2 of 2

Drilling Start Date: **02/18/2022**Drilling End Date: **02/18/2022**

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50
Driller: P. Pitts

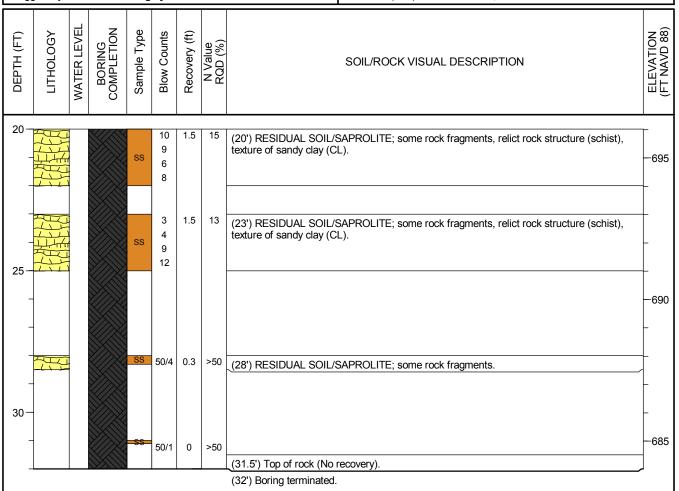
Logged By: D. Kegley

Boring Depth (in): 32

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **716.02**Location (N,E): **1236256.81**, **2029170.14**



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-119 Page: 1 of 3

3.8

Drilling Start Date: 01/07/2022 Boring Depth (in): 48.5

Drilling End Date: 01/07/2022 Boring Diameter (in):

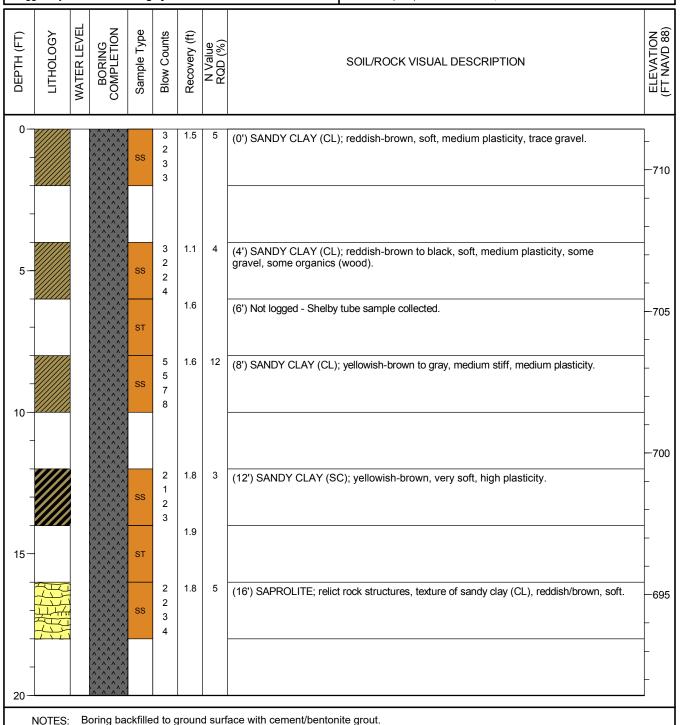
 Drilling Company:
 Thompson Engineering
 Sampling Method(s):
 SPT

 Drilling Method:
 Mud Rotary
 DTW During Drilling (ft):
 NA

 Drilling Equipment:
 Dietrich D-50
 DTW After Drilling (ft):
 NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 711.44

 Logged By:
 D. Kegley
 Location (N,E): 1237037.05, 2029350.03



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-119 Page: 2 of 3

Drilling Start Date: 01/07/2022

Drilling End Date: 01/07/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

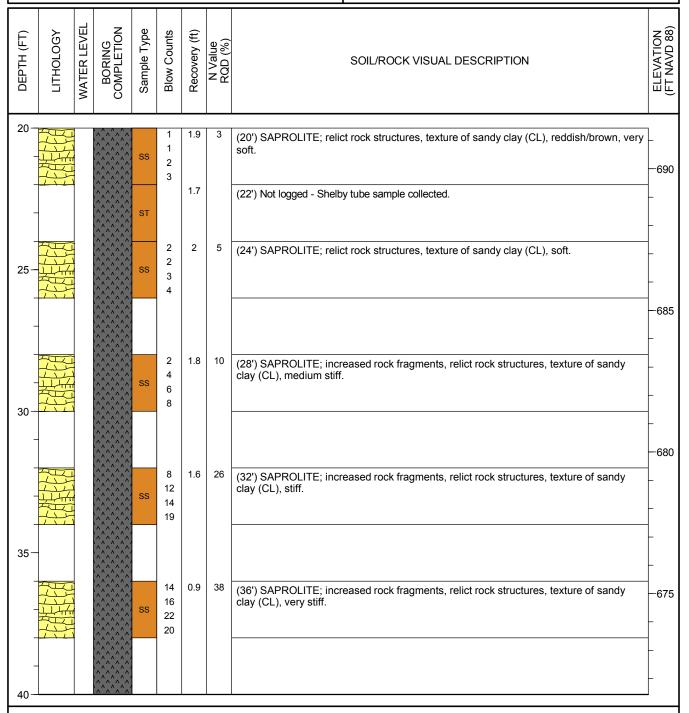
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 48.5

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **711.44**Location (N,E): **1237037.05, 2029350.03**





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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-119 Page: 3 of 3

Drilling Start Date: 01/07/2022 Boring Depth (in): 48.5

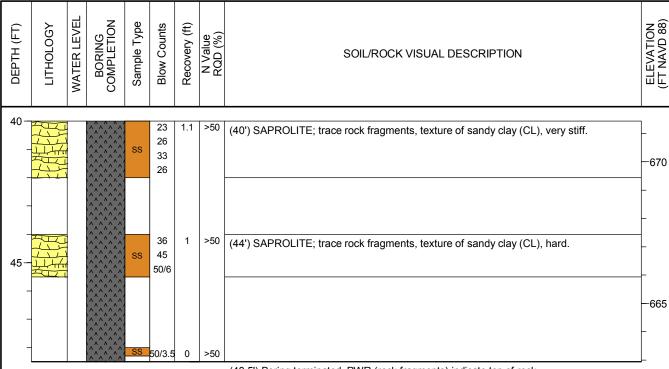
Drilling End Date: 01/07/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 711.44

 Logged By:
 D. Kegley
 Location (N,E): 1237037.05, 2029350.03



(48.5') Boring terminated. PWR (rock fragments) indicate top of rock.

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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-120

1 of 2

Page:

Drilling Start Date: 02/17/2022 Boring Depth (in): 34

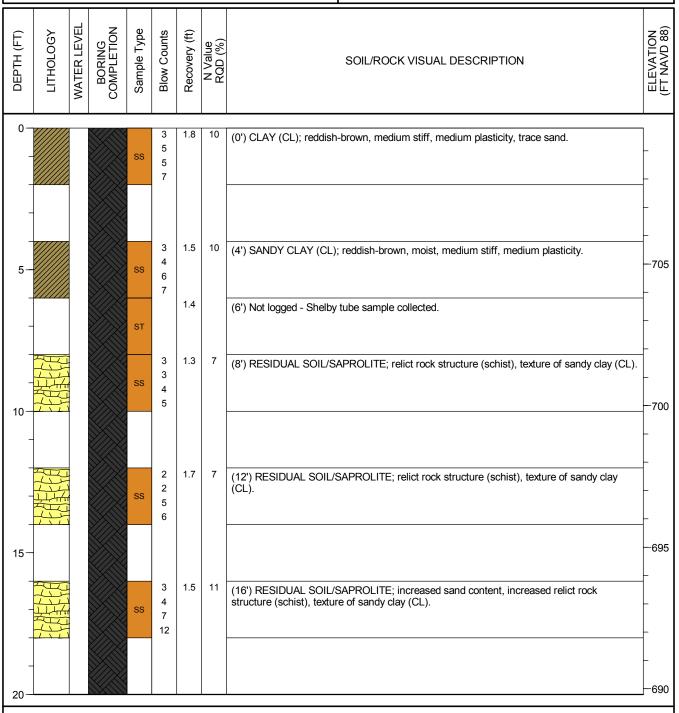
Drilling End Date: 02/17/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT

Drilling Method: Mud Rotary DTW During Drilling (ft): NA
Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 709.8

 Logged By:
 D. Kegley
 Location (N,E): 1236725.26, 2029707.84



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-120 Page: 2 of 2

Drilling Start Date: 02/17/2022 Boring Depth (in):
Drilling End Date: 02/17/2022 Boring Diameter (in

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

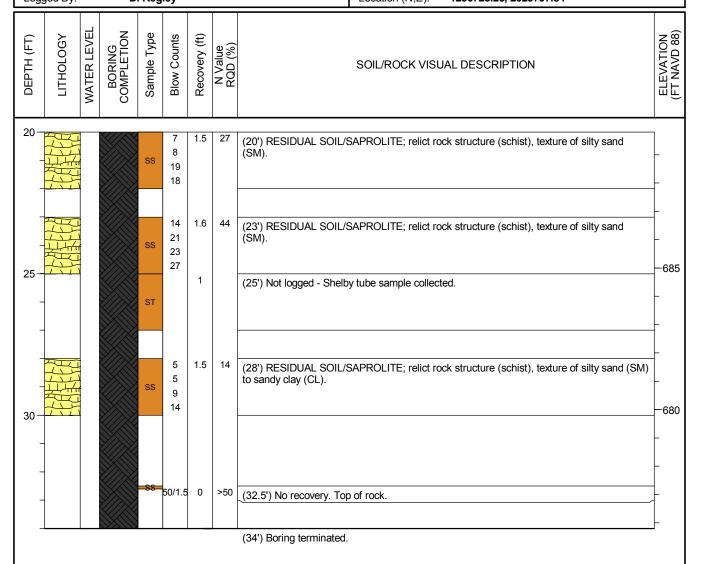
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 34

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **709.8**Location (N,E): **1236725.26**, **2029707.84**



Geosyntec[▶] consultants

Client: **Southern Company Services**

Project: Plant Wansley Landfill Expansion Investig.

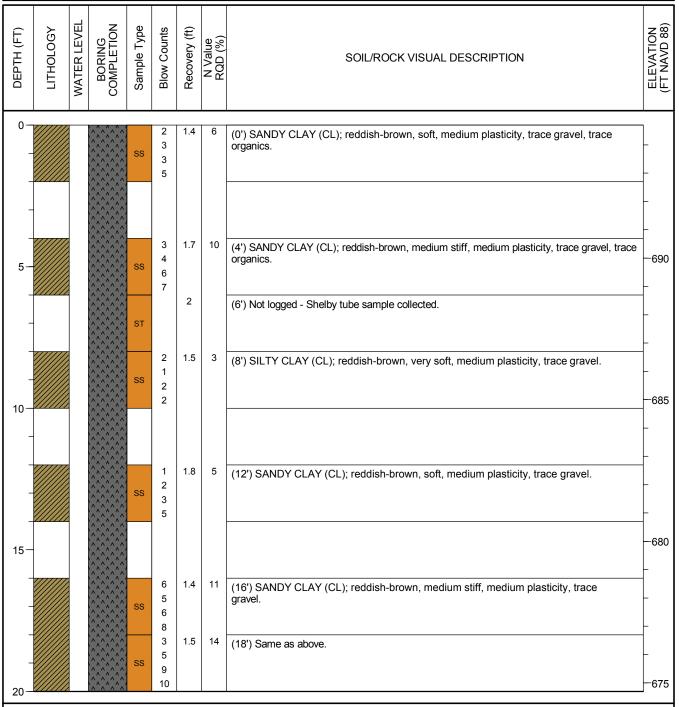
Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-121 Page: 1 of 2

38.5 Drilling Start Date: 01/08/2022 Boring Depth (in): 3.8 Drilling End Date: 01/08/2022 Boring Diameter (in):

SPT **Drilling Company: Thompson Engineering** Sampling Method(s): NA Drilling Method: **Mud Rotary** DTW During Drilling (ft): Drilling Equipment: Dietrich D-50 DTW After Drilling (ft): NA

Driller: P. Pitts Ground Surface Elev. (ft NAVD 88): 694.7 Logged By: D. Kegley Location (N,E): 1237382.64, 2030010.11



Dietrich D-50

NOTES: Boring backfilled to ground surface with cement/bentonite grout.

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Drilling Equipment:

Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

DTW After Drilling (ft):

BORING LOG Boring No. GS-121 Page: 2 of 2

NA

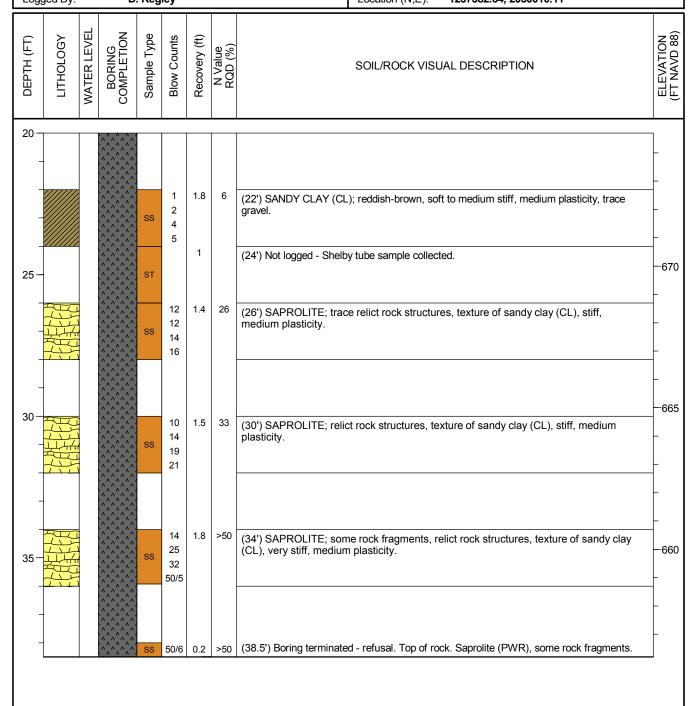
Drilling Start Date: 01/08/2022 Boring Depth (in): 38.5

Drilling End Date: 01/08/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT
Drilling Method: Mud Rotary DTW During Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 694.7

 Logged By:
 D. Kegley
 Location (N,E): 1237382.64, 2030010.11



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-122 Page: 1 of 2

Drilling Start Date: 01/08/2022
Drilling End Date: 01/08/2022

Drilling Company: Thompson Engineering

Drilling Method: Mud Rotary
Drilling Equipment: Dietrich D-50

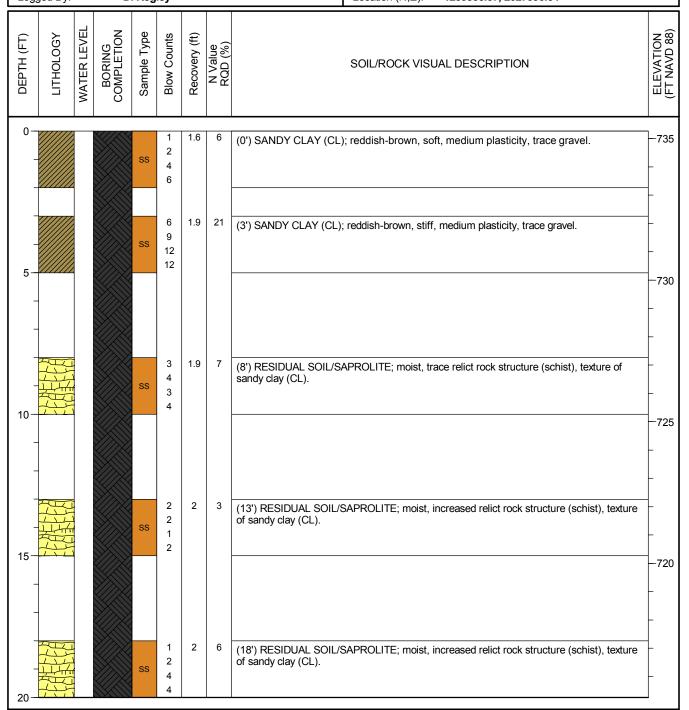
Driller: P. Pitts
Logged By: D. Kegley

Boring Depth (in): 39

Boring Diameter (in): 3.8
Sampling Method(s): SPT

DTW During Drilling (ft): NA
DTW After Drilling (ft): NA

Ground Surface Elev. (ft NAVD 88): **735.26**Location (N,E): **1239336.57**, **2027990.34**



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Client: Southern Company Services

Project: Plant Wansley Landfill Expansion Investig.

Address: 1371 Liberty Church Rd, Carrollton, GA

BORING LOG Boring No. GS-122

Page: 2 of 2

Drilling Start Date: 01/08/2022 Boring Depth (in): 39
Drilling End Date: 01/08/2022 Boring Diameter (in): 3.8

Drilling Company: Thompson Engineering Sampling Method(s): SPT
Drilling Method: Mud Rotary DTW During Drilling (ft): NA

Drilling Equipment: Dietrich D-50

DTW After Drilling (ft): NA

 Driller:
 P. Pitts
 Ground Surface Elev. (ft NAVD 88): 735.26

 Logged By:
 D. Kegley
 Location (N,E): 1239336.57, 2027990.34

