



ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

WIS TV
1111 Bull Street
Columbia SC 29201

ATTENTION
Caroline Patrickis

PROJECT ID
119 Summerlea Dr., Cola, SC

LABORATORY REPORT NUMBER
1701277

DATE
January 12, 2017

Primary Data Review By

Chris Pafford
Project Manager, AES

Secondary Data Review By

Ashley Amick

Project Manager, Access Analytical
aamick@axs-inc.com

PLEASE NOTE:

- Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3080 Presidential Drive, Atlanta, GA 30340.
- AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll free at 883.315.4243

Access Lab Report #: _____

Sub Lab (if applicable): AES / Sub Report #: _____



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 SCDHEC Lab Certification # 32571

Chain of Custody Record

1/15/17

Client:	<u>Wis TV</u>			Preservatives (see codes):	<u>2</u>	<u>0</u>	<u>0</u>															
Attn:	<u>CAROLINE PATRICKIS</u>			Bottle Types (see codes):	<u>P</u>	<u>P</u>	<u>P</u>															
Address:	<u>1111 Bull ST</u>			REQUESTED LAB ANALYSIS	<u>Fe, Mn, Pb</u>	<u>TDS</u>	<u>TURBIDITY</u>															
City:	<u>Columbia</u>	State:	<u>SC</u>					Zip Code:	<u>29201</u>													
Phone:		Fax:																				
Email:																						
Project ID:	<u>119 Summerlea Dr., COLA, SC</u>																					
Sampled By:	<u>Client</u>																					

Preservation Codes / Bottle Types:

***Preservative Codes:**
 0 = None, 1 = HCL, 2 = HNO₃, 3 = H₂SO₄, 4 = NaOH, 5 = Na₂S₂O₃, 6 = Method 5035 set w/ NaHSO₄ & CH₃OH, 7 = NaOH/ZnOAC, 8 = H₂PO₄, 9 = cooled to ≤6°C, 10 = cooled to ≤10°C, 11 = Amm.Cl, 12 = Ascorbic Acid / HCL, 13 = EDA

***Matrix Codes:**
 GW = ground water, WW = waste water, DW = drinking water, SW = surface/storm water, S = soil, SL = sludge, A = air, IW = industrial waste, O = other (specify in comments section)
 NA = for non-regulatory samples

***Program Area Codes:**
 CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking water), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type:** G = Glass, P = Plastic

Lab ID:	Sample Name:	Date Collected:	Time Collected:	G-Grab C-Comp	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test >>										
	<u>TAP WATER</u>	<u>1/11/17</u>	<u>1200</u>	<u>G</u>	<u>DW</u>	<u>N/A</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>								

Notes / Comments

Auto Sampler Data (composite samples only):

Date/Time On: _____ by whom: _____ Meter Reading Before: _____ Meter Reading After: _____ Difference: _____

Date/Time Off: _____ by whom: _____ X _____ (factor): _____

Turnaround Time Requested:	Project Location:	Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard <input checked="" type="checkbox"/> Rush * <input type="checkbox"/>	SC <input checked="" type="checkbox"/>		<u>FEDEX</u>	<u>1/11/17</u>	<u>1200</u>	<u>X</u> <u>Y</u> <u>N</u> <u>N/A</u>
*Date Required	NC <input type="checkbox"/>	<u>FEDEX</u>				<u>X</u> <u>Y</u> <u>N</u> <u>N/A</u>
Rush data emailed/faxed by the end of business day on date required. Standard TAT is 7-10 business days.	Other (Specify):					<u>Y</u> <u>N</u> <u>N/A</u>
Chain of Custody Page <u>1</u> of <u>1</u>	Received in lab by: <u>Miriam Sammar (Fedex)</u>			<u>1/15/17</u>	<u>10:30 AM</u>	<u>Y</u> <u>N</u> <u>N/A</u>

Analytical Environmental Services, Inc

Date: 12-Jan-17

Client: WIS TV	Client Sample ID: TAP WATER
Project Name: 119 Summerlea Dr., Cola, SC	Collection Date: 1/4/2017 12:00:00 PM
Lab ID: 1701277-001	Matrix: Drinking Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Turbidity E180.1								
Turbidity	12.1	1.00		NTU	R333680	1	01/05/2017 12:45	AD
Trace Elements by ICP/MS E200.8 (E200.2)								
Iron	10500	20.0		ug/L	236063	1	01/09/2017 14:22	JR
Lead	BRL	1.00		ug/L	236063	1	01/09/2017 14:22	JR
Manganese	104	5.00		ug/L	236063	1	01/09/2017 14:22	JR
Residue, Dissolved (TDS) by SM2540C								
Residue, Dissolved (TDS)	148	10		mg/L	236000	1	01/09/2017 12:00	AD

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Aes Analytical

Work Order Number 1701277

Checklist completed by [Signature] 1/5/2017
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present
Custody seals intact on shipping container/cooler? Yes No Not Present
Custody seals intact on sample bottles? Yes No Not Present
Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No

Cooler #1 0.6°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler #5 _____ Cooler #6 _____

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Samples in proper container/bottle? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No
All samples received within holding time? Yes No
Was TAT marked on the COC? Yes No
Proceed with Standard TAT as per project history? Yes No Not Applicable
Water - VOA vials have zero headspace? No VOA vials submitted Yes No
Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by [Signature]
Sample Condition: Good Other(Explain) _____
(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

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

Client: WIS TV
 Project Name: 119 Summerlea Dr., Cola, SC
 Lab Order: 1701277

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701277-001A	TAP WATER	1/4/2017 12:00:00PM	Drinking Water	Trace Elements by ICP/MS		1/9/2017 12:30:00 PM	01/09/2017
1701277-001B	TAP WATER	1/4/2017 12:00:00PM	Drinking Water	Turbidity			01/05/2017
1701277-001B	TAP WATER	1/4/2017 12:00:00PM	Drinking Water	Residue, Dissolved (TDS) by SM2540C		1/6/2017 12:00:00 PM	01/09/2017

Client: WIS TV
 Project Name: 119 Summerlea Dr., Cola, SC
 Workorder: 1701277

ANALYTICAL QC SUMMARY REPORT

BatchID: 236000

Sample ID: MB-236000	Client ID:	Units: mg/L	Prep Date: 01/06/2017	Run No: 333853							
SampleType: MBLK	TestCode: Residue, Dissolved (TDS) by SM2540C	BatchID: 236000	Analysis Date: 01/09/2017	Seq No: 7278521							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS) BRL 10

Sample ID: 1701046-001ADUP	Client ID:	Units: mg/L	Prep Date: 01/06/2017	Run No: 333853							
SampleType: DUP	TestCode: Residue, Dissolved (TDS) by SM2540C	BatchID: 236000	Analysis Date: 01/09/2017	Seq No: 7278541							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS) 72.00 10 70.00 2.82 5

Sample ID: 1701046-011ADUP	Client ID:	Units: mg/L	Prep Date: 01/06/2017	Run No: 333853							
SampleType: DUP	TestCode: Residue, Dissolved (TDS) by SM2540C	BatchID: 236000	Analysis Date: 01/09/2017	Seq No: 7279307							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS) 89.00 10 91.00 2.22 5

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

Client: WIS TV
 Project Name: 119 Summerlea Dr., Cola, SC
 Workorder: 1701277

ANALYTICAL QC SUMMARY REPORT

BatchID: 236063

Sample ID: MB-236063	Client ID:	Units: ug/L	Prep Date: 01/09/2017	Run No: 333841							
SampleType: MBLK	TestCode: Trace Elements by ICP/MS E200.8	BatchID: 236063	Analysis Date: 01/09/2017	Seq No: 7277966							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Iron	BRL	20.0									
Lead	BRL	1.00									
Manganese	BRL	5.00									

Sample ID: LCS-236063	Client ID:	Units: ug/L	Prep Date: 01/09/2017	Run No: 333841							
SampleType: LCS	TestCode: Trace Elements by ICP/MS E200.8	BatchID: 236063	Analysis Date: 01/09/2017	Seq No: 7277967							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Iron	1076	20.0	1000		108	85	115				
Lead	112.9	1.00	100.0		113	85	115				
Manganese	105.4	5.00	100.0		105	85	115				

Sample ID: 1701248-001AMS	Client ID:	Units: ug/L	Prep Date: 01/09/2017	Run No: 333841							
SampleType: MS	TestCode: Trace Elements by ICP/MS E200.8	BatchID: 236063	Analysis Date: 01/09/2017	Seq No: 7277969							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Iron	998.3	20.0	1000	16.41	98.2	70	130				
Lead	103.5	1.00	100.0	0.4512	103	70	130				
Manganese	109.4	5.00	100.0	12.94	96.4	70	130				

Sample ID: 1701248-011AMS	Client ID:	Units: ug/L	Prep Date: 01/09/2017	Run No: 333841							
SampleType: MS	TestCode: Trace Elements by ICP/MS E200.8	BatchID: 236063	Analysis Date: 01/09/2017	Seq No: 7277972							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Iron	963.4	20.0	1000	9.919	95.4	70	130				
Lead	98.44	1.00	100.0	0.1657	98.3	70	130				
Manganese	113.3	5.00	100.0	18.45	94.9	70	130				

Qualifiers:

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

Client: WIS TV
 Project Name: 119 Summerlea Dr., Cola, SC
 Workorder: 1701277

ANALYTICAL QC SUMMARY REPORT

BatchID: 236063

Sample ID: 1701248-001AMSD	Client ID:	Units: ug/L	Prep Date: 01/09/2017	Run No: 333841							
SampleType: MSD	TestCode: Trace Elements by ICP/MS E200.8	BatchID: 236063	Analysis Date: 01/09/2017	Seq No: 7277970							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Iron	1007	20.0	1000	16.41	99.0	70	130	998.3	0.847	20	
Lead	103.6	1.00	100.0	0.4512	103	70	130	103.5	0.098	20	
Manganese	111.4	5.00	100.0	12.94	98.4	70	130	109.4	1.80	20	

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

Client: WIS TV
 Project Name: 119 Summerlea Dr., Cola, SC
 Workorder: 1701277

ANALYTICAL QC SUMMARY REPORT

BatchID: R333680

Sample ID: MB-R333680	Client ID:	Units: NTU	Prep Date:	Run No: 333680							
SampleType: MBLK	TestCode: Turbidity E180.1	BatchID: R333680	Analysis Date: 01/05/2017	Seq No: 7273920							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Turbidity BRL 1.00

Sample ID: LCS-R333680	Client ID:	Units: NTU	Prep Date:	Run No: 333680							
SampleType: LCS	TestCode: Turbidity E180.1	BatchID: R333680	Analysis Date: 01/05/2017	Seq No: 7273921							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Turbidity 5.030 1.00 5.000 101 90 110

Sample ID: 1701291-001CDUP	Client ID:	Units: NTU	Prep Date:	Run No: 333680							
SampleType: DUP	TestCode: Turbidity E180.1	BatchID: R333680	Analysis Date: 01/05/2017	Seq No: 7273927							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Turbidity 19.05 1.00 17.77 6.95 30

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