



ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

WIS TV
1111 Bull Street
Columbia SC 29201

ATTENTION

Caroline Patrickis

PROJECT ID

390 Katydid St., Sumter, SC

LABORATORY REPORT NUMBER

1701276

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): RES / Sub Report #: _____ACCESS
ANALYTICAL, INC.

Access Analytical, Inc. -- Irmo

7478 Carlisle St. ~ Irmo, SC 29063

Phone: 803-781-4243 / Fax: 803-781-4303 / Web: www.axs-inc.com

SCDHEC Lab Certification # 32571

Chain of Custody Record

1701274

Client:	<u>WISTV</u>							Preservatives (see codes):	<u>2</u>	<u>0</u>	<u>0</u>						
Attn:	<u>CAROLINE PATRICKIS</u>							Bottle Types (see codes):	<u>2</u>	<u>A</u>	<u>2</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>390 KATYDID ST., SUMTER, SC</u>																
Sampled By:	<u>CLIENT</u>																
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>1/4/17</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>							

*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 = H₃PO₄, 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

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	☒	Rush *	SC	☒	<u>[Signature]</u>		<u>FedEx</u>		<u>1/4/17</u>	<u>1700</u>	<u>X</u> <u>Y</u> <u>N</u> <u>N/A</u>	
*Date Required			NC		<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>	
											<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>Muhammad (FedEx)</u>				<u>1/5/17</u>	<u>10:35AM</u>	<u>Y</u> <u>N</u> <u>N/A</u>	
										Sample Temp. Upon Receipt in Lab: <u>0.6°C</u>		

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White Copy: Lab original / Canary Copy: File Copy / Pink Copy: Client Copy

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Analytical Environmental Services, Inc
Date: 12-Jan-17

Client:	WIS TV	Client Sample ID:	TAP WATER
Project Name:	390 Katydid St., Sumter, SC	Collection Date:	1/4/2017 12:00:00 PM
Lab ID:	1701276-001	Matrix:	Drinking Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Turbidity E180.1								
Turbidity	19.9	2.00		NTU	R333680	2	01/05/2017 12:45	AD
Trace Elements by ICP/MS E200.8								
					(E200.2)			
Iron	3900	20.0		ug/L	236063	1	01/09/2017 14:18	JR
Lead	BRL	1.00		ug/L	236063	1	01/09/2017 14:18	JR
Manganese	57.0	5.00		ug/L	236063	1	01/09/2017 14:18	JR
Residue, Dissolved (TDS) by SM2540C								
Residue, Dissolved (TDS)	82	10		mg/L	236000	1	01/09/2017 12:00	AD

Qualifiers:

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

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

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client AES Analytical

Work Order Number 1701276

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

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

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

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

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

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

Cooler #1 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.

\\Aes_server\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recpt_Checklist_Rev1.rtf

Client: WIS TV
Project Name: 390 Katydid St., Sumter, SC
Lab Order: 1701276

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1701276-001A	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
1701276-001B	TAP WATER	1/4/2017 12:00:00PM	Drinking Water	Turbidity			01/05/2017
1701276-001B	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: 390 Katydid St., Sumter, SC
Workorder: 1701276

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: 390 Katydid St., Sumter, SC
 Workorder: 1701276

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

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: WIS TV
Project Name: 390 Katydid St., Sumter, SC
Workorder: 1701276

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		
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Client: WIS TV
Project Name: 390 Katydid St., Sumter, SC
Workorder: 1701276

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