



DIVISION OF LABORATORY SERVICES

Knoxville Regional Laboratory
630 Hart Lane
Nashville, TN 37243-0801
615-262-6300

Nashville Central Laboratory
630 Hart Lane
Nashville, TN 37243-0801
615-262-6300

Sent To: Bill Moore
Internal

Judy Manners
TDOH

Lab ID: N1711078
Nashville Central Laboratory

Sarah Driskell
Internal

Sampling Agency: TDOH



TDOH.N1711078.G

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.

A handwritten signature in black ink, appearing to read 'Susan Burchfield'.

Susan Burchfield
Analytical Supervisor

Lab-Sample Number: N1711078-01
Project Name: UDWI
Sample Description: 112

External Id #:

Sampler Project Name: UDWI
Project Site No.:
Station No.: 112
Date/Time Collected: 11/15/2017 09:45
Sampler's Name: Judy Manners
County: Polk - 70
Sample Matrix: Water
EFO: Chattanooga EFO
Sampling Agency: TDOH
Billing Code: HL00017233
Send Report To:
Priority Date: 12/10/2017
Date/time Received: 11/15/2017

Agency Invoiced: TDOH

Received By: Luz Maderal

TEST: Anions by IC		METHOD: 300_M						
PERFORMING LAB: Nashville Central Laboratory								
ANALYTE	RESULT	UNITS	Qual	MDL	ML	ANALYZED BY	DATE	
Chloride	1.54	mg/L	J	0.290	2.50	Patrick Leathers	11/16/2017	
Fluoride	0.0578	mg/L	J	0.0130	0.100	Patrick Leathers	11/16/2017	
Nitrate	0.0184	mg/L	J	0.00700	0.0500	Patrick Leathers	11/16/2017	
Nitrite	0.0142	mg/L	J	0.00260	0.0500	Patrick Leathers	11/16/2017	
Orthophosphate	0.0382	mg/L		0.00530	0.0250	Patrick Leathers	11/16/2017	
Sulfate	11.2	mg/L		0.260	2.50	Patrick Leathers	11/16/2017	

TEST: Total Phosphorus		METHOD: 365.1						
PERFORMING LAB: Nashville Central Laboratory								
ANALYTE	RESULT	UNITS	Qual	MDL	ML	ANALYZED BY	DATE	
Phosphorus	0.0461	mg/L	J	0.0140	0.0500	Patrick Leathers	12/8/2017	

Qualifier**Description**

QUALIFIERS

J	Estimated value between MDL and MQL
MDL	Method Detection Limit
MQL	Method Quantitation Limit
U	Undetected
J	Result is less than the MQL but greater than or equal to the MDL and the concentration is an approximate value.



N17711078 -001

PROJECT NAME:	UDWI	119	WATERBODY NAME:	N/A	*	Metals
STATION NUMBER:	N/A		COUNTY:	Hartman	X	aluminum, Al
DESCRIPTION:	Wills Springs			Palk	X	antimony, Sb
LATITUDE:	N/A		LONGITUDE:	N/A	X	arsenic, As
Matrix:	N/A		Depth:	N/A	X	barium, Ba
COLLECTED:	DATE	11/15/17	TIME	9:45	X	beryllium, Be
SAMPLER'S FULL NAME (printed):	Judy Manners				X	boron, B
SAMPLING AGENCY:	TDH				X	cadmium, Cd
IF PRIORITY, DATE NEEDED:					X	calcium, Ca
SEND REPORT TO:	Judy.Manners@tn.gov		BILLING CODE	HL00017233	X	chromium, Cr
* Env. Microbiology			Other General Inorganics:		X	cobalt, Co
coliform, fecal*	X	Gen. Inorganics (con't)			X	copper, Cu
coliform, total*	X	ortho-phosphate			X	iron, Fe
strep. fecal*	X	silica*			X	lithium, Li
E. Coli*	X	sulfate*			X	lead, Pb
Enterococcus*		turbidity*			X	magnesium, Mg
		Preserved, Nutrient			X	manganese, Mn
* General Inorganics		COD*			X	mercury, Hg
Not Preserved		nitrogen, ammonia			X	nickel, Ni
acidity as CaCO ₃ *		nitrogen, NO ₃ & NO ₂			X	potassium, K
alkalinity as CaCO ₃ *		nitrogen, total Kjeldahl			X	silver, Ag
BOD, 5-day*	X	nitrogen, total organic			X	selenium, Se
CBOD, 5-day*		phosphate, total			X	strontium, Sr
chloride*		SPECIAL PRESERVATION			X	sodium, Na
chromium, hexavalent		cyanide			X	thallium, Tl
color		oil and grease			X	vanadium, V
conductivity*		phenols, total			X	zinc, Zn
fluoride*		sulfide, total*			X	hardness, Ca as CaCO ₃ *
MBAS*		TOC**			X	hardness, total as CaCO ₃ *
nitrogen, nitrate*						
nitrogen, nitrite*						
pH						
residue, dissolved*		Asbestos				
residue, settleable*		bulk asbestos				
residue, suspended*		other microscopic				
residue, total*						

* denotes analyses performed only on water

FIELD DETERMINATIONS

Conductivity, (uhms)	Chlorine, residual	Other Field Parameters:
Dissolved Oxygen, (mg/L)	Turbidity, (NTU)	
Temperature, (°C)	ORP, (mv)	
pH	Flow Rate	

Chain of Custody and Supplemental Information

Only one chain of custody form is required per sample or point (if all collected at the same time)

1. Collected By: *Judy Manners* Date: 11/15/17 Time: 9:45

Delivered to: *John Doe* Date: 11/15/17 Time: 9:30

2. Received by: _____ Date: _____ Time: _____

Delivered to: _____ Date: _____ Time: _____

3. Received by: _____ Date: _____ Time: _____

Delivered to: _____ Date: _____ Time: _____

4. Received in Lab by: _____ Date: _____ Time: _____

5. Received in Lab by: _____ Date: _____ Time: _____

6. Received in Lab by: *J. Manners* Date: 11/15/17 Time: 14:00

Logged in by: *John Doe* Date: 11/15/17 Time: 14:00

Additional Information

1. Others present at collection
2. Other samples collected
3. Mode of transportation to lab
4. Cooler sealed by
5. Date cooler sealed
6. Remarks



N1711078 -002

PROJECT NAME:	UDWI	WATERBODY NAME:	N/A
STATION NUMBER:	113	COUNTY:	Hamilton Cannon
STREAM MILE:	N/A	DESCRIPTION:	Buck's Rd Spring
LATITUDE:	N/A	LONGITUDE:	N/A
Matrix:	N/A	Depth:	N/A
COLLECTED:	DATE 11/15/17	TIME	12:00
SAMPLER'S FULL NAME (printed)	Judy Manners		
SAMPLING AGENCY:	TDH		
IF PRIORITY, DATE NEEDED:		BILLING CODE	HL00017233
SEND REPORT TO:	Judy.Manners@tn.gov		

Env. Microbiology	Gen. Inorganics (con't)	Other General Inorganics:	Metals
coliform, fecal*	ortho-phosphate	iron, Fe	aluminum, Al
coliform, total*	silica*	lithium, Li	antimony, Sb
strep. fecal*	sulfate*	lead, Pb	arsenic, As
E. Coli*	turbidity*	magnesium, Mg	barium, Ba
Enterococcus*	Preserved, Nutrient	manganese, Mn	beryllium, Be
	COD*	mercury, Hg	boron, B
	nitrogen, ammonia	nickel, Ni	cadmium, Cd
	nitrogen, NO ₂ & NO ₃	potassium, K	calcium, Ca
	nitrogen, total Kjeldahl	selenium, Se	chromium, Cr
	nitrogen, total organic	silver, Ag	cobalt, Co
	nitrogen, total phosphate	sodium, Na	copper, Cu
	phosphate, total	strontium, Sr	iron, Fe
		thallium, Tl	lithium, Li
		vanadium, V	lead, Pb
		zinc, Zn	magnesium, Mg
			manganese, Mn
			mercury, Hg
			nickel, Ni
			potassium, K
			selenium, Se
			silver, Ag
			sodium, Na
			strontium, Sr
			thallium, Tl
			vanadium, V
			zinc, Zn
			hardness, Ca as CaCO ₃ *
			hardness, total as CaCO ₃ *
			Other Metals:

* denotes analyses performed only on water

FIELD DETERMINATIONS

Conductivity, (uhmhos)	Chlorine, residual	Other Field Parameters:
Dissolved Oxygen, (mg/L)	Turbidity, (NTU)	
Temperature, (°C)	ORP, (mv)	
	Flow Rate	

Chain of Custody and Supplemental Information
Only one chain of custody form is required per sample or point (if all collected at the same time)

1. Collected By [Signature] Time 12:00
 Date 11/15/17
 Delivered to [Signature] Time 12:00
 Date 11/15/17
 2. Received by [Signature] Time 12:00
 Date 11/15/17

Delivered to [Signature] Time
 Date
 3. Received by [Signature] Time
 Date
 Delivered to [Signature] Time
 Date
 4. Received in Lab by [Signature] Time
 Date
 5. Received in Lab by [Signature] Time
 Date
 6. Received in Lab by [Signature] Time
 Date

Additional Information
 1. Others present at collection
 2. Other samples collected
 3. Mode of transportation to lab
 4. Cooler sealed by
 5. Date cooler sealed
 6. Remarks