



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Station Name: Blue Hole Spring @ Caverns State Park

WIN/ Field ID: G2TLHR0009

County: Jackson

WBID: 51Z

Date: 08/23/2018
(mm/dd/yyyy)

Latitude: 30.8201838

(Decimal Degrees)

Longitude: 85.2452327

(Decimal Degrees)

Receiving Body of Water: Chipola Rvier

ORG ID: 21FLTLHR

RQ-2018- 08-20-59

Sampling Team Members

J. Burdette
J. Woods

WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	☒	☒	☒	☒

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole

☐ Carboy ☒ Syringe

☐ Dipper ☐ Other

Depth Measured with Equipment ID

Collection Method

☐ Wading ☐ Canoe/Kayak

☐ From Shore ☐ Electric Motor

☒ Other dock ☐ Gasoline Motor

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Photos: Yes No

Flow: No Flow / Intertidal / Flowing NA

Meter ID# 16477

Tide: Rising/ Falling/ Slack NA

Matrix: Fresh / Marine / DI

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1225	5.7	0.3	1.9	5.46	63.7	7.39	0.11	228	23.0
CEN	1228		5.2		5.42	63.0	7.33	0.11	229	22.9

Biological Samples Collected:

None

HA

SCI

RPS

Algae ID

LVS

LVI

Other:

Parameter Suite

SBIO ID:

Parameter Methods

RPS-ID:

Macrophyte-ID:

LIMS#:

Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	Preservation	☒ Ice ☐ H2SO4	Lot#	Expiration	pH Check
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3				☒ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice				☐ <2
Chlorophyll	☒ CHLSUITE-W	☒ Ice				
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice				
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☒ Ice				
Macroinvertebrates	☐ MI-FW-QLDC	☐ Ice				
Periphyton	☐ ALGAE-ID	☐ Formalin				
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci	☐ Ice				
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☒ Ice				
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice				
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA	☐ Ice				
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice				
		☐ Other				

Place Preservative Sticker(s) Here
(If Available)

Notes:

A-b

Field/WIN ID →

Location ↓



G2TLHR0009



BLUE HOLE SPRING @ CAVERN

Date: 08/23/18

Signature:

After Field Parameters, Verify Station ID In LIMS DMT:

Save Field Sheets

Migrate Data to WIN:

QC Station ID, Field Parameters In LIMS DMT:

Verify Data In WIN:

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Meter ID:

RQ:

Project:

Boldly "X" this box if there are qualified data on this page.

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 8/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J. Burtchett	8/23/18	740	19.9	757.2	9.11	9.13	100	-	1.00	P/F	F
ICV	↓	↓	750	19.6	757.2	9.17	9.18	100	-	-	P/F	F
CCV				23.9	761.0	8.43	9.44	101	-	-	P/F	L/F
CCV											P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. **Rapid-Pulse Sensors:** DO Gain Range 0.7 to 1.4; DO Charge Range 25-75. **Steady-state & Galvanic Sensors:** DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Burtchett	8/23/18	742	K8003A	04/19	1000	1000	P/F	F
ICV	↓	↓	752	2502833	01/20	100	100	P/F	F
CCV				1503261	04/19	100		P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Burtchett	8/23/18	744	1406216	01/20	7.0	19.3	7.0	-17.6	P/F	F
Calibr.	↓	↓	746	1505103	05/19	4.0	14.4	4.0	61.6	P/F	F
Calibr.	↓	↓	748	1402216	09/19	10.0	19.4	10.0	-85.9	P/F	F
ICV	↓	↓	754	1402216	09/19	10.0	20.9	10.0	-100.2	P/F	F
CCV				140510A	05/19	7.0	26.2	4.1	158.3	P/F	L/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU;

mV pH 7 Range 0 ± 50 ;

If mV are recorded: slope from 7 to 10 1, slope from 4 to 7 1

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

(both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 7/18

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID:

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass / Fail	Lab / Field
Pressure mode in air	J. Burtchett	8/23/18	756	0.00	0.0	P/F	F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: TLH-ROC

Project ID: SMP

Requester: Michael Eckles

Collected By: J. Woods, J. Burtchett

Field Report Prepared By: J. Burtchett

Sampling Agency: Y034

Location		Field ID		WIN/STORET #		Latitude		Longitude		Matrix (type, e.g., Salt, Fresh, etc)		Temp (C)		Salinity (ppt)		pH		Sample Depth		Diss. Oxygen		mg/L Total Res. Chlorine		Sp. Conductance (umho/cm)		Bottle Group(s)	
Blue Hole Spring @averns state park		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
G2TLH20009		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
Field ID		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
WIN/STORET #		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
Latitude		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
Longitude		G2TLH20009		G2TLH20009		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		dd dms		mg/L		%		mg/L	
Matrix (type, e.g., Salt, Fresh, etc)		Fresh		Fresh		Fresh		Fresh		Fresh		Fresh		Fresh		Fresh		Fresh		Fresh		mg/L		%		mg/L	
Temp (C)		23.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0		mg/L		%		mg/L	
Salinity (ppt)		0.11		0.11		0.11		0.11		0.11		0.11		0.11		0.11		0.11		0.11		mg/L		%		mg/L	
pH		7.39		7.39		7.39		7.39		7.39		7.39		7.39		7.39		7.39		7.39		mg/L		%		mg/L	
Sample Depth		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		mg/L		%		mg/L	
Diss. Oxygen		5.46		5.46		5.46		5.46		5.46		5.46		5.46		5.46		5.46		5.46		mg/L		%		mg/L	
mg/L Total Res. Chlorine		228		228		228		228		228		228		228		228		228		228		mg/L		%		mg/L	
Sp. Conductance (umho/cm)		228		228		228		228		228		228		228		228		228		228		mg/L		%		mg/L	
Bottle Group(s)		A		A		A		A		A		A		A		A		A		A		mg/L		%		mg/L	

Relinquished By: JB JW

Date/Time: 8/23/18

Shipping Method: HD

Number of Coolers Shipped: 1

Received By: [Signature]

Date/Time: 8/23/18

1452

Group: A	Bottle Type:	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: A	Bottle Type:	BP-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	CHLSUITE-W					
Group: A	Bottle Type:	P-250ML-WO-THI	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ECOLI-18QT					
Group: A	Bottle Type:	P-500ML	# of Bottles: 3	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: A	Bottle Type:	P-125ML	# of Bottles: 3	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab
	W-PO4-F					
Group: B	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-SO4-IC					
	W-TDS					
	W-TSS					
Group: B	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	CHLSUITE-W					
Group: B	Bottle Type:	P-250ML-WO-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab

Cooler Packing Worksheet for Request: RQ-2018-08-20-59

Run 6

Ship Cooler On: 8/16/2018

Customer/Project: TLH-ROC/SMP

Assigned To: REYNOLDS

Requester: Michael Eckles

Priority: 3

850-245-7586
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Michael Eckles

Please return
packing list with
sample/submittal
forms.

Comments:

No preservatives needed.

Group A freshwater nutrients with bacteria
WBIDs 51D, 51E, 51Z

Group B Freshwater nutrients B/T/M
WBID 569

Group Is Freshwater nutrients with metals, marker, and Pesticides
WBID 512

Requested Analyses:

Bottle Group: A

of Sites: 3

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 00071991

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
W-SO4-IC
W-TDS
W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO₃/L
Turbidity in aqueous matrices
Chloride in aqueous matrices
True Color measured at 450 nm
Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Sulfate in aqueous matrices
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 3 Preservation: ICE

Lot # 1227219

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 122721

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # L18038

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Container ID: QPCR-P-500ML

Qty: 1 Preservation: ICE

Lot # 000 7145

Description: 500ml Sterile Nalgene

Affix PCR Instruction Label to container

Analysis

PCR-BACR

PCR-FILTER

PCR-GFD

PCR-GULL2

PCR-HF183

Description

Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction

Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Container ID: BG-500ML

Qty: 1 Preservation: ICE

Lot # 000 68229

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 000 68229

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Container ID: BG-500ML

Qty: 1

Preservation: CH₂ClCOOH Pre-Preserved

Lot # 00068229

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-CARB-AA

Description

Carbamates in water matrices by HPLC/MS/MS

Container ID: BG-500ML

Qty: 4

Preservation: ICE

Lot # 00068229

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-CT-CI-R

W-PCL-SQ-R

DescriptionOrganochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization
Organochlorine pesticides in water matrices by GC/MS-SIM

Container ID: BG-500ML

Qty: 1

Preservation: ICE

Lot # 00068229

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

DescriptionPesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 1

Preservation: HNO₃

Lot # 00068229

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

DescriptionTotal Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 1

Preservation: ICE And H₂SO₄

Lot # 00068229

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

AnalysisW-NH₃W-NO₂NO₃

W-S-A-TP

W-TKN

W-TOC

DescriptionAmmonia in aqueous matrices as mg N/L
Nitrite/Nitrate in aqueous matrices as mg N/L
Total Phosphorus in aqueous matrices as mg P/L
Total Kjeldahl Nitrogen in aqueous matrices
Nonpurgeable Organic Carbon in aqueous matrices