



# Collier County™

## POLLUTION CONTROL

LIVE GREEN. SAVE BLUE.

### Field Sampling Report

**Date:** Wednesday, December 18, 2019

**Sampler:** Krystal Silas

**Meter/Notes:** Josh Gravlin



Certificate No

[4262.01](#)

**Client:** City of Marco Island  
**Project:** Marco Island  
**Run:** I

<b>CCV: Morning</b>		Sonde / Handheld	ProDSS #11	Serial #:	19E104158
Date/Time:	12/18/19 6:07 AM	Operator:	Josh Gravlin	Project:	MARCO

*** Conductivity ***				Associated Calibration File:	
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail	Calibration_11_121319.xlsm	
2000	11623	1988	Pass		
*** pH ***					
pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail		
4.00	13177	3.96	Pass		
7.00				All CCV Results Pass?	
10.00				Yes	

*** Dissolved Oxygen ***							
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure	
CCV Readings --->	8.57	101.3	23.8	Pass	8.425	757.8	

Notes:

<b>CCV: Afternoon</b>	Date/Time:	12/18/2019 14:02	Operator:	Josh Gravlin
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*** Conductivity ***					
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail		
10000	11626	9920	Pass		
70000	13303	68409	Pass		
*** pH ***					
pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail		
4.00					
7.00	12861	7.03	Pass	All CCV Results Pass?	
10.00	13197	9.95	Pass	Yes	

*** Dissolved Oxygen ***							
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure	
CCV Readings --->	8.91	100.2	21.1	Pass	8.885	758.7	

Notes:

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

MARCO\_I\_121819  
3 of 10

Program: MARCO

Run: I

Sample Collector: Krystal Silas

Meter / Notes: Josh Gravlin

Date: 12/18/2019

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	ODO (% LocalB)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57993	8:32	WINDMILL	23.5	46295	30.06	97.4	6.96	7.78	0.30		3.00	1.20
AF57993B	8:38	WINDMILL	24.4	52665	34.72	88.0	6.03	7.82	2.70		3.00	1.20
Collection Device	VanDorn; CDI: 05512		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	Yes
Comments: Visibly outgoing tide. Vegetative debris on water surface.											Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57998	8:59	WINDMILL										
Collection Device	VanDorn; CDI: 05512		Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	Yes
Comments: FCEB collected from CDI 08334 carboy. Light rain during sampling event.											Sample Type:	FCEB

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57995	9:24	HOLLYHOCK	24.4	51434	33.81	74.9	5.16	7.64	0.30		1.10	1.10
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	No flow.	Staff Gauge:			pH < 2:	Yes
Comments: Vegetative debris on water surface. No visible tidal movement. Light rain during sampling event.											Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57994	9:48	HUMMINGBIRD	24.6	50413	33.05	77.5	5.35	7.62	0.30		1.10	1.10
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	Yes
Comments: Vegetative debris on water surface.											Sample Type:	SAMP

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	<a href="#">Named storm event that impacted sampling event?</a>	No
Sites Access By:	Truck	Weather:	Light rain. Cloudy. High in the 70s.	
Sampling SOP:	FSQM 03-03	24 HRS Prior Weather:	High in the 80s. Sunny.	

Prepared By: *Joshua Gravlin*

Reviewed By: *Krystal Silas*

Signed:  
12/18/2019  
2:43:44 PM  
Signed:  
12/18/2019  
2:40:54 PM

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

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Program: MARCO

Run: I

Sample Collector: Krystal Silas

Meter / Notes: Josh Gravlin

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57992	10:17	MCILVAINE	24.0	51525	33.88	85.5	5.93	7.91	0.30		1.10	1.10
Collection Device:		Pole Sampler; CDI: 11853		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		Yes
Comments: Visibly outgoing tide. Vegetative debris on water surface.											Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57991	11:15	W_WINTERBERRY_BRIDGE	23.9	49928	32.71	94.8	6.63	7.96	0.30		2.40	2.20
AF57991B	11:17	W_WINTERBERRY_BRIDGE	23.9	50446	33.09	93.8	6.54	7.95	2.10		2.40	2.20
Collection Device:		VanDorn; CDI: 05512		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		Yes
Comments: Visibly outgoing tide. Vegetative debris on water surface. Large piece of trash upstream of sample site.											Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57996	11:43	E_WINTERBERRY_BRIDGE	24.0	47529	30.95	82.9	5.85	7.81	0.30		1.10	1.10
Collection Device:		Pole Sampler; CDI: 11853		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		Yes
Comments: Appears to be tidal movement; could be the strong wind. Vegetative debris on water surface. Bats audible under upstream bridge.											Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:				Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		Yes
Comments:											Sample Type:	

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Light rain. Cloudy. High in the 70s.	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	High in the 80s. Sunny.	

Prepared By: Joshua Gravlin

Reviewed By: Krystal Silas

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

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Program: MARCO

Run: I

Sample Collector: Krystal Silas

Meter / Notes: Josh Gravlin

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Light rain. Cloudy. High in the 70s.	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	High in the 80s. Sunny.	

Prepared By: Joshua Gravlin

Reviewed By: Krystal Silas

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

MARCO\_I\_121819  
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Program: MARCO

Run: I

Sample Collector: Krystal Silas

Meter / Notes: Josh Gravlin

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Field Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Light rain. Cloudy. High in the 70s.	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	High in the 80s. Sunny.	

Prepared By: Joshua Gravlin

Reviewed By: Krystal Silas



### Collier County Pollution Control Department Chain of Custody

3339 Tamiami Trail East, Bldg. Ste. 304 Naples, Florida 34112

Phone: (239) 252-2502 FAX: (239) 252-6479

NELAC Certification: #E45464

#### Client Information

**Name:** Rhonda Watkins  
**Company Name:** Collier County Natural Resources  
**Address:** 2685 South Horseshoe Drive Ste 103, Fl 34104  
**Phone:** (239) 252-2502 Ext. 6049  
**Fax:** (239) 252-6479

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
1G 1000mL HDPE/Ice	73522					
2C 1L Opaque HDPE/Light-shielded/Ice	AF57870					
3S 125ml HDPE/H2SO4/Ice	CDI 13026	8 drops	RP14084	Fisher	12/18/2019	JAG
4F 60ml Opaque HDPE/Filtered/Ice	AF55337					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI 12139					
6N 250ml HDPE/H2SO4	CDI 13005	16 drops	RP14084	Fisher	12/18/2019	JAG
14 Whatman Polydisc GW 0.45µm	A24365266					

Project	MARCO	MATRIX CODES
Sample Collector(s):		GW Ground Water
Krystal Silas		SW Surface Water
Sample Collector Signature:		WW Waste Water
		DW Drinking Water
		Other
Relinquished By: (Signature)		

Received By: (Signature)	Date/Time	12/18/19 2:41 PM
Relinquished By: (Signature)	Date/Time	12/18/19 2:41 PM
Received By: (Signature)	Date/Time	
Received By: (Signature)	Date/Time	

Parameters										Sample Check-In		
Turbidity-PC	Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Nitrogen-TKN-PC, Prep-TKN	Nitrite-PC, Nitrate-Nitrite-PC	Enterolert-PC	Phosphorus-CP-PC, Prep Metals	TN-PC, CC-Nitrate-N-PC					Sample(s) Intact?	
											Rec'd in wet ice?	
											Temp °C:	
											Proper Samp ID?	
											Rec'd within hold time?	
											Acid preserved samples pH<2?	
											Logged In?	
											Scanned?	

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	Bottle Codes							# of sample Containers Submitted	Lab ID #		
							1G	2C	3S	4F	5J	6N	Calc				
12/18/2019	8:32	7.78	46295	0.30	WINDMILL	SW	1	1	1	1	1	1					AF57993
12/18/2019	8:59	#N/A	#N/A	#N/A	WINDMILL	SW	1	1	1	1	1	1					AF57998
12/18/2019	9:24	7.64	51434	0.30	HOLLYHOCK	SW	1	1	1	1	1	1					AF57995
12/18/2019	9:48	7.62	50413	0.30	HUMMINGBIRD	SW	1	1	1	1	1	1					AF57994
12/18/2019	10:17	7.91	51525	0.30	MCILVAINE	SW	1	1	1	1	1	1					AF57992
12/18/2019	11:15	7.96	49928	0.30	W_WINTERBERRY_BRIDGE	SW	1	1	1	1	1	1					AF57991
12/18/2019	11:43	7.81	47529	0.30	E_WINTERBERRY_BRIDGE	SW	1	1	1	1	1	1					AF57996

Notes:

**Collier County Pollution Control Surface Water Field Workbook**  
**Audit Trail Worksheet**

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-M15	FB	FCEB	Sampler	12/18/2019 9:04	Incorrect initial entry.	Joshua Gravlin
Field Sheet-B15	FCEB collected from CDI 08334 carboy.	FCEB collected from CDI 08334 carboy. Light rain during sampling event.	Sampler	12/18/2019 9:29	Added rain comment.	Joshua Gravlin
Field Sheet-C44	COLLIER_BRIDGE	W_WINTERBERRY_BRIDGE	Sampler	12/18/2019 11:25	Incorrect initial entry.	Joshua Gravlin
Field Sheet-B54	Appears to be visible tidal movement; could be the strong wind. Vegetative debris on water surface.	Ba	Sampler	12/18/2019 11:49	Incorrect initial entry.	Joshua Gravlin
Field Sheet-B54	Ba	Appears to be tidal movement; could be the strong wind. Vegetative debris on water surface. Bats audible under upstream bridge.	Sampler	12/18/2019 11:49	Incorrect initial entry.	Joshua Gravlin



KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREATED: 12/18/2019 19:19

DATE	TIME	SITE	Barometer (mmHg)	Temp (°C)	Cond (µS/cm)	Sp Cond (µS/cm)	nLFCCond (µS/cm)	Sal (ppt)	Sioma-T (s t)	Sioma (s)	pH	pH (mV)	ODO (% Sat)	ODO (mg/L)	ODO (% LocalB)
12/18/2019	8:32:04 AM	windmill	759.9	23.5	44993	46295.3	46425.9	30.06	20	20	7.78	-72.6	97.4	6.96	97.4
12/18/2019	8:38:14 AM	windmill	759.9	24.4	52035	52664.8	52729	34.72	23.3	23.3	7.82	-74.8	88	6.03	88
12/18/2019	9:24:08 AM	af57995	760.7	24.4	50858.5	51433.9	51492.6	33.81	22.6	22.6	7.64	-64.9	75	5.16	74.9
12/18/2019	9:48:04 AM	af57994	760.7	24.6	49986.2	50417.7	50456.4	33.05	22	22	7.62	-63.3	77.6	5.35	77.5
12/18/2019	10:17:53 AM	af57992	761	24	50550	51524.7	51623.4	33.88	22.8	22.8	7.91	-80	85.6	5.93	85.5
12/18/2019	11:15:35 AM	w winterberry	760.4	23.9	48872.5	49928.3	50035	32.71	21.9	21.9	7.96	-83.1	94.9	6.63	94.8
12/18/2019	11:17:10 AM	w winterberry	760.4	23.9	49417.6	50446.3	50550.3	33.09	22.2	22.2	7.95	-82.5	93.8	6.54	93.8
12/18/2019	11:43:04 AM	af57996	760.4	24	46641.2	47529.2	47619.2	30.95	20.6	20.6	7.81	-74.4	83	5.85	82.9
12/18/2019	12:58:48 PM	naples pier	760.1	23	50543.2	52558.8	52759	34.66	23.7	23.7	7.98	-84.2	93.8	6.59	93.7





# Collier County™

## POLLUTION CONTROL

LIVE GREEN. SAVE BLUE.

### Field Sampling Report

**Date:** Wednesday, December 18, 2019

**Sampler:** Danny Berger

**Meter/Notes:** Chris Lienhardt



Certificate No

[4262.01](#)

**Client:** City of Marco Island  
**Project:** Marco Island  
**Run:** II

<b>CCV: Morning</b>		Sonde / Handheld	ProDSS #8	Serial #:	16A101840	
Date/Time:	12/18/19 6:06 AM	Operator:	Josh Gravlin	Project:	MARCO	
<b>*** Conductivity ***</b>				<b>Associated Calibration File:</b>		
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail	Calibration_8_121319.xlsm		
2000	11623	1993	Pass			
<b>*** pH ***</b>						
pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail			
4.00	13177	4.11	Pass			
7.00				All CCV Results Pass?		
10.00				Yes		
<b>*** Dissolved Oxygen ***</b>						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.55	100.5	23.3	Pass	8.508	758
Notes:						
<b>CCV: Afternoon</b>		Date/Time:	12/18/2019 13:52	Operator:	Chris Lienhardt	
<b>*** Conductivity ***</b>						
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail			
10000	11626	10087	Pass			
70000	13303	70861	Pass			
<b>*** pH ***</b>						
pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail			
4.00						
7.00	12861	7.15	Pass	All CCV Results Pass?		
10.00	13190	10.08	Pass	Yes		
<b>*** Dissolved Oxygen ***</b>						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.85	101.5	22.2	Pass	8.698	758.8
Notes:						
Surface Water Field Workbook Rev 16.2 Effective December 17th, 2019						

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

MARCO\_IL\_121819  
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Program: MARCO

Run: II

Sample Collector: Danny Berger

Meter / Notes: Chris Lienhardt

Date: 12/18/2019

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	ODO (% LocalB)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57984	8:23	OLDE_MARCO	22.8	47372	30.86	96.0	6.92	8.02	0.30		1.60	1.60
AF57984B	8:26	OLDE_MARCO	23.9	52480	34.59	90.9	6.29	8.01	1.30		1.60	1.60
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
<b>Comments:</b> Tides outgoing until 11:59 according to tidal charts. Vegetative debris floating on surface near site.											Sample Type:	<b>SAMP</b>

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57985	8:51	JH_PARK	24.4	51924	34.17	80.4	5.53	7.88	0.30		3.30	1.90
AF57985B	8:54	JH_PARK	24.4	52355	34.49	79.1	5.44	7.89	3.00		3.30	1.90
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
<b>Comments:</b> Visibly outgoing tide. Vegetative debris on surface.											Sample Type:	<b>SAMP</b>

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57986	9:55	HC_CENTER	23.7	47360	30.83	94.8	6.73	7.96	0.30		1.45	1.45
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
<b>Comments:</b> Visibly outgoing tide. Grass clipping and leaf litter covering much of the surface of the site. Pictures by CTL.											Sample Type:	<b>SAMP</b>

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57987	10:27	COLLIER_BRIDGE	23.7	45350	29.38	82.7	5.92	7.88	0.30		1.10	1.10
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
<b>Comments:</b> Visibly outgoing tide. Feces observed on seawall near site.											Sample Type:	<b>SAMP</b>

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	<a href="#">Named storm event that impacted sampling event?</a>	No
Sites Access By:	Truck	Weather:	Overcast with light rain early changing to breezy and cool conditons.	
Sampling SOP:	FSQM 03-03	24 HRS Prior Weather:	Similar with late PM rains.	

Prepared By: Christopher Lienhardt

Reviewed By: Danny Berger

Signed:  
12/26/2019  
3:41:41 PM  
Signed:  
12/18/2019  
2:21:22 PM

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

MARCO\_IL\_121819  
4 of 11

Program: MARCO

Run: II

Sample Collector: Danny Berger

Meter / Notes: Chris Lienhardt

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
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AF57999 10:39 COLLIER\_BRIDGE

Collection Device:	Sample Container	Cleaning Protocol:	Flow:	Staff Gauge:	pH < 2:	YES	
Comments:	FB taken from CDI 13269.					Sample Type:	FB

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
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AF57988 11:08 KENDALL 24.5 51555 33.89 70.9 4.88 7.83 0.30 0.60 0.60

Collection Device:	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2:	YES
Comments:	Visibly outgoing tide. Construction barge passed during sampling.					Sample Type:	SAMP	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
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AF57989 11:40 BARFIELD\_BRIDGE 24.0 52452 34.57 94.6 6.53 8.01 0.30 1.40 1.10

Collection Device:	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2:	YES
Comments:	Difficult to determine tidal flow due to high winds. Tidal chart shows outgoing until 11:59.					Sample Type:	SAMP	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
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AF57990 12:04 LANDMARK 24.3 52717 34.76 100.3 6.89 8.08 0.30 1.20 1.20

Collection Device:	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2:	YES
Comments:	Tide appears to be slack.					Sample Type:	SAMP	

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix:	SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Overcast with light rain early changing to breezy and cool conditons.		
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar with late PM rains.		

Prepared By: Christopher Lienhardt

Reviewed By: Danny Berger

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

MARCO\_IL\_121819  
5 of 11

Program: MARCO

Run: II

Sample Collector: Danny Berger

Meter / Notes: Chris Lienhardt

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF57997	12:33	SWALLOW	23.6	45751	29.67	88.5	6.33	8.01	0.30		1.30	1.10
Collection Device:		Pole Sampler; CDI: 10882		Cleaning Protocol: J		Flow: No flow.		Staff Gauge:		pH < 2:		YES
Comments: Tide appears to be slack.										Sample Type:		SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:										Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:										Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:				Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		
Comments:										Sample Type:		

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Overcast with light rain early changing to breezy and cool conditons.	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar with late PM rains.	

Prepared By: Christopher Lienhardt

Reviewed By: Danny Berger

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: II

Sample Collector: Danny Berger

Meter / Notes: Chris Lienhardt

Date: 12/18/2019

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Field Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:		
Comments:											Sample Type:	

Bottles Per Site / Shipped Per Site:	6 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Overcast with light rain early changing to breezy and cool conditons.	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar with late PM rains.	

Prepared By: Christopher Lienhardt

Reviewed By: Danny Berger





**Collier County Pollution Control Department Chain of Custody**

3339 Tamiami Trail East, Bldg. Ste. 304 Naples, Florida 34112

Phone: (239) 252-2502 FAX: (239) 252-6479

NELAC Certification: #E45464

**Client Information**

**Name:** Rhonda Watkins  
**Company Name:** Collier County Natural Resources  
**Address:** 2685 South Horseshoe Drive Ste 103, Fl 34104  
**Phone:** (239) 252-2502 Ext. 6049  
**Fax:** (239) 252-6479

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
1G 1000mL HDPE/Ice	73522					
2C 1L Opaque HDPE/Light-shielded/Ice	AF57870					
3S 125ml HDPE/H2SO4/Ice	CDI13026	8 Drops	RP14085	Fisher	12/18/2019	CTL, DMB
4F 60ml Opaque HDPE/Filtered/Ice	AF55337					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI12139					
6N 250ml HDPE/H2SO4	CDI13005	16 Drops	RP14085	Fisher	12/18/2019	CTL, DMB
14 Whatman Polydisc GW 0.45µm	A24365266					

Project	MARCO	MATRIX CODES
Sample Collector(s):		GW Ground Water
Danny Berger		SW Surface Water
Sample Collector Signature:		WW Waste Water
		DW Drinking Water
		Other _____
Relinquished By: (Signature)		

Received By: (Signature)	Date/Time	12/18/19 2:25 PM
Relinquished By: (Signature)	Date/Time	12/18/19 2:25 PM
Received By: (Signature)	Date/Time	

Parameters										Sample Check-In		
Turbidity-PC Chlorophyll-PC, Pheophytin-PC, Prep-Chloro Nitrogen-TKN-PC, Prep-TKN Nitrite-PC, Nitrate-Nitrite-PC Enterolert-PC Phosphorus-CP-PC, Prep Metals TN-PC, CC-Nitrate-N-PC											Sample(s) Intact?	
											Rec'd in wet ice?	
											Temp °C:	
											Proper Samp ID?	
											Rec'd within hold time?	
											Acid preserved samples pH<2?	
											Logged In?	
Bottle Codes										Scanned?		

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	1G	2C	3S	4F	5J	6N	Calc	# of sample Containers Submitted					Lab ID #	
12/18/2019	8:23	8.02	47372	0.30	OLDE MARCO	SW	1	1	1	1	1	1								AF57984
12/18/2019	8:51	7.88	51924	0.30	JH_PARK	SW	1	1	1	1	1	1								AF57985
12/18/2019	9:55	7.96	47360	0.30	HC_CENTER	SW	1	1	1	1	1	1								AF57986
12/18/2019	10:27	7.88	45350	0.30	COLLIER_BRIDGE	SW	1	1	1	1	1	1								AF57987
12/18/2019	10:39	#N/A	#N/A	#N/A	COLLIER_BRIDGE	SW	1	1	1	1	1	1								AF57999
12/18/2019	11:08	7.83	51555	0.30	KENDALL	SW	1	1	1	1	1	1								AF57988
12/18/2019	11:40	8.01	52452	0.30	BARFIELD_BRIDGE	SW	1	1	1	1	1	1								AF57989
12/18/2019	12:04	8.08	52717	0.30	LANDMARK	SW	1	1	1	1	1	1								AF57990
12/18/2019	12:33	8.01	45751	0.30	SWALLOW	SW	1	1	1	1	1	1								AF57997

Notes:

Collier County Pollution Control Surface Water Field Workbook  
Audit Trail Worksheet

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B5		0.355555556	0.349305556 Sampler	12/18/2019 8:31	Incorrect initial entry.	Christopher Lienhardt
Field Sheet-M5		1.6	1/1/1900 14:24 Sampler	12/18/2019 8:31	No reason given by user.	Christopher Lienhardt
Field Sheet-M5		1/1/1900 14:24	1.6 Sampler	12/18/2019 8:31	No reason given by user.	Christopher Lienhardt

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREATED: 12/18/2019 17:53

DATE	TIME	SITE	Barometer (mmHg)	Temp (°C)	Sp Cond (µS/cm)	TDS (mg/L)	Sal (ppt)	pH	pH (mV)	ODO (% Sat)	ODO (mg/L)	ODO (% LocalB)
12/18/2019	8:23:29 AM	af57984	760.1	22.8	47371.8	30792	30.86	8.02	-66.5	96	6.92	96
12/18/2019	8:26:29 AM	af57984	760.1	23.9	52479.8	34112	34.59	8.01	-66.1	90.9	6.29	90.9
12/18/2019	8:51:39 AM	af57985	760.4	24.4	51923.6	33750	34.17	7.88	-58.7	80.4	5.53	80.4
12/18/2019	8:54:07 AM	af57985	760.5	24.4	52355	34031	34.49	7.89	-59.4	79.2	5.44	79.1
12/18/2019	9:25:41 AM	south marco	761.1	23.5	52351.5	34029	34.5	8.08	-70	100.1	6.98	99.9
12/18/2019	9:55:00 AM	af57986	760.9	23.7	47359.6	30784	30.83	7.96	-63.5	94.9	6.73	94.8
12/18/2019	10:27:47 AM	af57987	761.1	23.7	45350	29477	29.38	7.88	-58.6	82.8	5.92	82.7
12/18/2019	11:08:32 AM	af57988	760.9	24.5	51554.6	33511	33.89	7.83	-55.7	71	4.88	70.9
12/18/2019	11:40:33 AM	af57989	760.7	24	52451.5	34093	34.57	8.01	-66	94.6	6.53	94.6
12/18/2019	12:04:34 PM	af57990	760.4	24.3	52717.1	34266	34.76	8.08	-70.2	100.4	6.89	100.3
12/18/2019	12:33:21 PM	af57997	760.3	23.6	45750.7	29738	29.67	8.01	-66	88.5	6.33	88.5





**Description: Lawn debris at HC\_CENTER.**