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Report To: Tonia Selmeski
City of Marco Island
50 Bald Eagle Drive
Marco Island, FL 34145

Collected by: CCPCD
Collection Date: 05/14/2020
Submittal Date: 05/14/2020 @ 12:18

Report Date : 6/17/2020
Report Time : 3:21:01PM

Project: MARCO
Report#: 0520_MRCO_II

Data Qualifier Code Key:

I: The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U: The compound was analyzed for but not detected
Q: Sample held beyond acceptable holding time
J: Estimate value; the reported value failed to meet established criteria for either precision or accuracy
V: Analyte detected in both the sample and the associated method blank
B: Colony count is generated from plates in which the total number of colonies is outside the method indicated ideal range
Y: The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
G: Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated field blank, equipment blank, or trip blank, and the blank value was greater than 10% of the associated sample value.

Analyses performed using EPA or Standard Methods and certified to meet NELAC Standards. Data qualifiers assigned according to F.A.C. 62-160. Results contained in this report relate only to the samples collected.

NEFAP ACCREDITED TNI FIELD SAMPLING & MEASUREMENT ORGANIZATION

NELAP ACCREDITED TNI LABORATORY

Respectfully Submitted,

Nosbel Perez

Nosbel Perez
Laboratory Supervisor

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: JH_PARK	*Field ID:* AF60338		*Lab ID:* AF60338		*Collect Date/Time:* 5/14/20 09:12				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020 09:12
Specific Conductance	FDEP FT1200	54566			umho/cm			1	05/14/2020 09:12
Dissolved Oxygen Saturation	FDEP FT1500	91.8	>42		%			1	05/14/2020 09:12
Chlorophyll a	SM 10200 H	3.3	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	6.0			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:02
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: HC_CENTER	*Field ID:* AF60339		*Lab ID:* AF60339		*Collect Date/Time:* 5/14/20 09:35				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/14/2020 09:35
Specific Conductance	FDEP FT1200	53882			umho/cm			1	05/14/2020 09:35
Dissolved Oxygen Saturation	FDEP FT1500	82	>42		%			1	05/14/2020 09:35
Chlorophyll a	SM 10200 H	1.1	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	2.00			mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	1.8			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:05
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: COLLIER_BRIDGE	*Field ID:* AF60340		*Lab ID:* AF60340		*Collect Date/Time:* 5/14/20 09:56				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020 09:56
Specific Conductance	FDEP FT1200	53775			umho/cm			1	05/14/2020 09:56
Dissolved Oxygen Saturation	FDEP FT1500	78.8	>42		%			1	05/14/2020 09:56
Chlorophyll a	SM 10200 H	3.1	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 09:21
Pheophytin	SM 10200 H	1.30			mg/m3	1.00	1.00	1	06/03/2020 12:49

Turbidity	SM 2130 B	7.1			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:06
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: **KENDALL**	***Field ID:***	**AF60341**		***Lab ID:***	**AF60341**	***Collect Date/Time:***			**5/14/20**	**10:14**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020	10:14
Specific Conductance	FDEP FT1200	54558			umho/cm			1	05/14/2020	10:14
Dissolved Oxygen Saturation	FDEP FT1500	82.5	>42		%			1	05/14/2020	10:14
Chlorophyll a	SM 10200 H	5.1	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.30			mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	8.0			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:07
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: **BARFIELD_BRIDGE**	***Field ID:***	**AF60342**		***Lab ID:***	**AF60342**	***Collect Date/Time:***			**5/14/20**	**10:36**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	8.0	6.5 - 8.5		SU			1	05/14/2020	10:36
Specific Conductance	FDEP FT1200	55081			umho/cm			1	05/14/2020	10:36
Dissolved Oxygen Saturation	FDEP FT1500	91.7	>42		%			1	05/14/2020	10:36
Chlorophyll a	SM 10200 H	4.0	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.60			mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	7.2			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:07
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **LANDMARK**	***Field ID:***	**AF60343**		***Lab ID:***	**AF60343**	***Collect Date/Time:***			**5/14/20**	**09:49**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020	09:49
Specific Conductance	FDEP FT1200	53148			umho/cm			1	05/14/2020	09:49
Dissolved Oxygen Saturation	FDEP FT1500	77.7	>42		%			1	05/14/2020	09:49

Chlorophyll a	SM 10200 H	3.5	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	1.3			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:08
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **W_WINTERBERRY_BRIDGE** ***Field ID:*** **AF60344** ***Lab ID:*** **AF60344** ***Collect Date/Time:*** **5/14/20 10:35**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020 10:35
Specific Conductance	FDEP FT1200	54598			umho/cm			1	05/14/2020 10:35
Dissolved Oxygen Saturation	FDEP FT1500	86.6	>42		%			1	05/14/2020 10:35
Chlorophyll a	SM 10200 H	1.7	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 09:21
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	6.8			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:09
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **MCILVAINE** ***Field ID:*** **AF60345** ***Lab ID:*** **AF60345** ***Collect Date/Time:*** **5/14/20 11:10**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	8.0	6.5 - 8.5		SU			1	05/14/2020 11:10
Specific Conductance	FDEP FT1200	54556			umho/cm			1	05/14/2020 11:10
Dissolved Oxygen Saturation	FDEP FT1500	93	>42		%			1	05/14/2020 11:10
Chlorophyll a	SM 10200 H	2.6	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	4.3			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:10
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **WINDMILL** ***Field ID:*** **AF60346** ***Lab ID:*** **AF60346** ***Collect Date/Time:*** **5/14/20 08:26**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020 12:51
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53

pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020	08:26
Specific Conductance	FDEP FT1200	54776			umho/cm			1	05/14/2020	08:26
Dissolved Oxygen Saturation	FDEP FT1500	86.7	>42		%			1	05/14/2020	08:26
Chlorophyll a	SM 10200 H	3.7	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	17			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:11
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **HUMMINGBIRD** ***Field ID:*** **AF60347** ***Lab ID:*** **AF60347** ***Collect Date/Time:*** **5/14/20 09:04**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020	09:04
Specific Conductance	FDEP FT1200	53978			umho/cm			1	05/14/2020	09:04
Dissolved Oxygen Saturation	FDEP FT1500	89.3	>42		%			1	05/14/2020	09:04
Chlorophyll a	SM 10200 H	5.0	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	6.7			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:12
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **HOLLYHOCK** ***Field ID:*** **AF60348** ***Lab ID:*** **AF60348** ***Collect Date/Time:*** **5/14/20 08:45**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020	08:45
Specific Conductance	FDEP FT1200	54791			umho/cm			1	05/14/2020	08:45
Dissolved Oxygen Saturation	FDEP FT1500	81.4	>42		%			1	05/14/2020	08:45
Chlorophyll a	SM 10200 H	7.5	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	2.80			mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	7.4			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:17
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: E_WINTERBERRY_BRIDGE	*Field ID:* AF60349		*Lab ID:* AF60349		*Collect Date/Time:* 5/14/20 09:24				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020 09:24
Specific Conductance	FDEP FT1200	54546			umho/cm			1	05/14/2020 09:24
Dissolved Oxygen Saturation	FDEP FT1500	86.1	>42		%			1	05/14/2020 09:24
Chlorophyll a	SM 10200 H	4.9	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	1.80			mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	13			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:20
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: SWALLOW	*Field ID:* AF60350		*Lab ID:* AF60350		*Collect Date/Time:* 5/14/20 10:11				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020 12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020 13:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/14/2020 10:11
Specific Conductance	FDEP FT1200	51897			umho/cm			1	05/14/2020 10:11
Dissolved Oxygen Saturation	FDEP FT1500	81.7	>42		%			1	05/14/2020 10:11
Chlorophyll a	SM 10200 H	3.5	<4.9		mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020 12:49
Turbidity	SM 2130 B	2.3			NTU	0.10	0.50	1	05/15/2020 07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020 14:21
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020 14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: MARCO_BLANK	*Field ID:* AF60351		*Lab ID:* AF60351		*Collect Date/Time:* 5/14/20 08:47				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020 12:52
Enterococci	Enterolert/QT	1	<130	U	MPN/100 mL	1	1	1	05/14/2020 13:53
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	05/14/2020 08:47
Specific Conductance	FDEP FT1200	NA			umho/cm			1	05/14/2020 08:47
Dissolved Oxygen Saturation	FDEP FT1500	NA	>42		%			1	05/14/2020 08:47
Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	06/03/2020 12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020 10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020 12:49

Turbidity	SM 2130 B	0.10		U	NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:22
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **DUP1**	***Field ID:***	**AF60352**		***Lab ID:***	**AF60352**	***Collect Date/Time:***			**5/14/20**	**11:14**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	8.0	6.5 - 8.5		SU			1	05/14/2020	11:14
Specific Conductance	FDEP FT1200	54563			umho/cm			1	05/14/2020	11:14
Dissolved Oxygen Saturation	FDEP FT1500	93	>42		%			1	05/14/2020	11:14
Chlorophyll a	SM 10200 H	2.3	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	4.6			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:22
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_II

Location: **OLDE_MARCO**	***Field ID:***	**AF60353**		***Lab ID:***	**AF60353**	***Collect Date/Time:***			**5/14/20**	**08:34**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.033	0.050	1	06/17/2020	12:51
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/14/2020	13:53
pH	FDEP FT1100	8.0	6.5 - 8.5		SU			1	05/14/2020	08:34
Specific Conductance	FDEP FT1200	55113			umho/cm			1	05/14/2020	08:34
Dissolved Oxygen Saturation	FDEP FT1500	91	>42		%			1	05/14/2020	08:34
Chlorophyll a	SM 10200 H	2.0	<4.9		mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	10:24
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	5.8			NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:23
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

ANALYTICAL RESULTS Report # 0520_MRCO_I

Location: **MARCO_BLANK**	***Field ID:***	**AF60372**		***Lab ID:***	**AF60372**	***Collect Date/Time:***			**5/14/20**	**11:26**
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**	
CC-Nitrate-N	CC-Nitrate-N	0.033		U	mg/L	0.011	0.020	1	06/17/2020	12:52
Enterococci	Enterolert/QT	1	<130	U	MPN/100 mL	1	1	1	05/14/2020	13:53
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	05/14/2020	11:26
Specific Conductance	FDEP FT1200	NA			umho/cm			1	05/14/2020	11:26
Dissolved Oxygen Saturation	FDEP FT1500	NA	>42		%			1	05/14/2020	11:26

Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/15/2020	09:21
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	06/03/2020	12:49
Turbidity	SM 2130 B	0.10		U	NTU	0.10	0.50	1	05/15/2020	07:14
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2020	14:24
Persulfate Digestion for Total P	SM 4500-P B	N/A						1	05/14/2020	14:24

Collier County™
POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

Field Sampling Report

Date: Thursday, May 14, 2020
Sampler: Josh Gravlin
Meter/Notes: Chris Lienhardt

NEFAP ACCREDITED
TNI
FIELD SAMPLING & MEASUREMENT ORGANIZATION

Certificate No
4262.01

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

CCV: Morning		**Sonde / Handheld**	ProDSS #8	**Serial #:**	16A101840	
Date/Time:	5/14/20 7:00 AM		**Operator:**	Josh Gravlin	**Project:**	**MARCO**

***** Conductivity *****				**Associated Calibration File:**
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail	Calibration_8_051220.xlsm
70000	13501	69793	Pass	
***** pH *****				
pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail	
4.00				
7.00				All CCV Results Pass?
10.00	13684	9.96	Pass	**Yes**

***** Dissolved Oxygen *****						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.49	99.3	23.4	Pass	8.540	762.3

Notes:

CCV: Afternoon		**Date/Time:**	5/14/2020 12:27	**Operator:**	Chris Lienhardt

***** Conductivity *****				
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail	
10000	11624	9815	Pass	
70000	13888	70048	Pass	
***** pH *****				
pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail	
4.00				
7.00	13688	7.05	Pass	All CCV Results Pass?
10.00	13684	9.96	Pass	**Yes**

***** Dissolved Oxygen *****						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.41	99.5	24.0	Pass	8.447	762.6

Notes:

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** I **Sample Collector:** Josh Gravlin **Meter / Notes:** Chris Lienhardt **Date:** 5/14/2020

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	D.O. (% SAT)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF60346	8:26	WINDMILL	25.7	54776	36.26	86.7	5.79	7.91	0.30		2.00	0.80
AF60346B	8:27	WINDMILL	25.7	54805	36.28	86.8	5.80	7.92	1.70		2.00	0.80
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:			Staff Gauge:		pH < 2:	YES
Comments:	**Visibly outgoing tide.**										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)
AF60348	8:45	HOLLYHOCK	25.9	54791	36.26	81.4	5.42	7.86	0.30		1.30	1.00
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:			Staff Gauge:		pH < 2:	YES
Comments:	**Boat passed just prior to sampling. Visibly outgoing tide.**										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)
AF60347	9:04	HUMMINGBIRD	26.1	53978	35.65	89.3	5.94	7.90	0.30		1.40	1.20
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:			Staff Gauge:		pH < 2:	YES
Comments:	**Visibly outgoing tide.**										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)
AF60349	9:24	E_WINTERBERRY_BRIDGE	25.6	54546	36.09	86.1	5.76	7.91	0.30		1.90	0.90
AF60349B	9:26	E_WINTERBERRY_BRIDGE	25.7	54712	36.21	86.1	5.76	7.94	1.60		1.90	0.90
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:			Staff Gauge:		pH < 2:	YES
Comments:	**Visibly outgoing tide. Bats could be heard upstream of sample site under bridge. Bat guano could be smelled from upstream at bridge.**										Sample Type:	**SAMP**

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	ight rainfall and breezy conditions developing in the late morning. Tem		
Sampling SOP:	FSQM 03-04	24 HRS Prior Weather:	Sunny and hot.		

Prepared By: **Christopher Lienhardt** Signed: 5/14/2020 12:53:37 PM

Reviewed By: *Joshua Gravlin* Signed: 5/14/2020 12:50:49 PM

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** I **Sample Collector:** Josh Gravlin **Meter / Notes:** Chris Lienhardt **Date:** 5/14/2020

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)
AF60343	9:49	LANDMARK	25.8	53148	35.04	77.7	5.22	7.88	0.30	[redacted]	1.80	1.80
AF60343B	9:51	LANDMARK	26.5	54248	35.84	77.3	5.11	7.89	1.50	[redacted]	1.80	1.80
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:	[redacted]		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Light rainfall during sampling. Tide appears to be outgoing but strong winds made it difficult to be sure. Tidal chart shows outgoing until 13:49.**										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)
AF60350	10:11	SWALLOW	25.8	51897	34.12	81.7	5.52	7.91	0.30	[redacted]	2.00	1.40
AF60350B	10:13	SWALLOW	26.7	54230	35.82	63.5	4.18	7.92	1.70	[redacted]	2.00	1.40
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:	[redacted]		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Light rainfall during sampling. Tide appears to be outgoing but strong winds made it difficult to be sure. Tidal chart shows outgoing until 13:49. Several large fish active next to sample site prior to and 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)
AF60344	10:35	W_WINTERBERRY_BRIDGE	25.8	54598	36.12	86.6	5.78	7.94	0.30	[redacted]	[redacted]	1.10
[redacted]												
Collection Device	VanDorn; CDI: 08721			Cleaning Protocol:	J	Flow:	[redacted]		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Light rainfall during sampling. Unable to determine tidal flow. Tidal chart shows outgoing until 13:49. Site too deep to determine total depth.**										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)
AF60345	11:10	MCILVAINE	25.4	54556	36.10	93.0	6.25	7.97	0.30	[redacted]	1.50	1.50
AF60345B	11:12	MCILVAINE	25.4	54564	36.11	92.9	6.25	7.98	1.20	[redacted]	1.50	1.50
Collection Device	Pole Sampler; CDI: 11853			Cleaning Protocol:	J	Flow:	[redacted]		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Visibly outgoing tide. Pool construction occurring at adjacent home during sampling; no visible impacts to water from pool construction.**										Sample Type:	**SAMP**

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	ight rainfall and breezy conditions developing in the late morning. Tem	Prepared By:	Christopher Lienhardt
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Sunny and hot.	Reviewed By:	Joshua Gravlin

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** I **Sample Collector:** Josh Gravlin **Meter / Notes:** Chris Lienhardt **Date:** 5/14/2020

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)
AF60352	11:14	MCILVAINE	25.4	54563	36.10	93.0	6.25	7.98	0.30		1.50	1.50
AF60352B	11:16	MCILVAINE	25.4	54562	36.10	92.9	6.24	7.98	1.20		1.50	1.50

Collection Device: Pole Sampler; CDI: 11853 | Cleaning Protocol: J | Flow: | Staff Gauge: | pH < 2: YES

Comments: Visibly outgoing tide. Pool construction occurring at adjacent home during sampling; no visible impacts to water from pool construction. | Sample Type: **REP**

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)
AF60372	11:26	MCILVAINE										

Collection Device: Sample Container | Cleaning Protocol: | Flow: | Staff Gauge: | pH < 2: YES

Comments: FB taken from CDI13269. | 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)

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:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	ight rainfall and breezy conditions developing in the late morning. Tem	Prepared By:	Christopher Lienhardt
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Sunny and hot.	Reviewed By:	Joshua Gravlin

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** I **Sample Collector:** Josh Gravlin **Meter / Notes:** Chris Lienhardt **Date:** 5/14/2020

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:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	ight rainfall and breezy conditions developing in the late morning. Tem	Prepared By:	Christopher Lienhardt
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Sunny and hot.	Reviewed By:	Joshua Gravlin

Collier County POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

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

Project	MARCO
Sample Collector(s):	
Josh Gravlin	
Sample Collector Signature:	

MATRIX CODES
GW Ground Water
SW Surface Water
WW Waste Water
DW Drinking Water
Other_____

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
1G 1000mL HDPE/Ice	76877					
2C 1L Opaque HDPE/Light-shielded/Ice	AF58237, 59313					
3S 250ml HDPE/H2SO4/Ice	CDI13008, 13013	16 Drops	RP14989	Fisher	5/14/2020	CTL, JAG
4F 60ml Opaque HDPE/Filtered/Ice	AF55358					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI12141					
14 Whatman Polydisc GW 0.45µm	A24365266, A29352435					

Relinquished By: (Signature)	
Date/Time	5/14/20 12:55 PM
Received By: (Signature)	
Date/Time	5/14/20 12:55 PM
Relinquished By: (Signature)	
Date/Time	
Received By: (Signature)	
Date/Time	

Parameters	Turbidity-PC	Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Nitrogen-TKN, Phosphorous-Total, Nitrate-Nitrite, Prep-TKN	Nitrite-PC	Enterolert-PC	TN-PC, CC-Nitrate-N-PC
Bottle Codes	1G	2C	3S	4F	5J	Calc

Sample Check-In	
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	# of sample Containers Submited												Lab ID #
5/14/2020	8:26	7.91	54776	0.30	WINDMILL	SW	1	1	1	1	1								AF60346
5/14/2020	8:45	7.86	54791	0.30	HOLLYHOCK	SW	1	1	1	1	1								AF60348
5/14/2020	9:04	7.90	53978	0.30	HUMMINGBIRD	SW	1	1	1	1	1								AF60347
5/14/2020	9:24	7.91	54546	0.30	E_WINTERBERRY_BRIDGE	SW	1	1	1	1	1								AF60349
5/14/2020	9:49	7.88	53148	0.30	LANDMARK	SW	1	1	1	1	1								AF60343
5/14/2020	10:11	7.91	51897	0.30	SWALLOW	SW	1	1	1	1	1								AF60350
5/14/2020	10:35	7.94	54598	0.30	W_WINTERBERRY_BRIDGE	SW	1	1	1	1	1								AF60344
5/14/2020	11:10	7.97	54556	0.30	MCILVAINE	SW	1	1	1	1	1								AF60345
5/14/2020	11:14	7.98	54563	0.30	REPLICATE	SW	1	1	1	1	1								AF60352
5/14/2020	11:26	#N/A	#N/A	#N/A	MCILVAINE	SW	1	1	1	1	1								AF60372

Notes:

Sulfuric botles shipped to PACE for analysis.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Collier County Pollution Control & Prevention	Report To: Nosbel Perez	Attention:
Address: 3339 Tamiami Trail East, Suite 304	Copy To:	Company Name:
Naples, FL 34112		Address:
Email To: rhondawatkins@colliergov.net	Purchase Order No.:	Pace Quote Reference:
Phone: 239-252-2502 Fax: 239-252-2574	Project: MARCO	Pace Project Manager:
Requested Due Date/TAT: Standard	Project: MARCO	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER_____

SITE LOCATION GA IL IN MI NC OH SC WI OTHER FL

ITEM #	Item ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED DATE	COLLECTED TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH/Zn Acetate	Na2S2O3	Methanol	Other	Filtered (Y/N)	Requested: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro				Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
1	AF60346	SW	G	[redacted]	[redacted]	5/14/20	8:26 AM	25.70	1		1								1					
2	AF60348	SW	G	[redacted]	[redacted]	5/14/20	8:45 AM	25.90	1		1								1					
3	AF60347	SW	G	[redacted]	[redacted]	5/14/20	9:04 AM	26.10	1		1								1					
4	AF60349	SW	G	[redacted]	[redacted]	5/14/20	9:24 AM	25.60	1		1								1					
5	AF60343	SW	G	[redacted]	[redacted]	5/14/20	9:49 AM	25.80	1		1								1					
6	AF60350	SW	G	[redacted]	[redacted]	5/14/20	10:11 AM	25.80	1		1								1					
7	AF60344	SW	G	[redacted]	[redacted]	5/14/20	10:35 AM	25.80	1		1								1					
8	AF60345	SW	G	[redacted]	[redacted]	5/14/20	11:10 AM	25.40	1		1								1					
9	AF60352	SW	G	[redacted]	[redacted]	5/14/20	11:14 AM	25.40	1		1								1					
10	AF60372	SW	G	[redacted]	[redacted]	5/14/20	11:26 AM		1		1								1					
11				[redacted]	[redacted]																			
12				[redacted]	[redacted]																			
13				[redacted]	[redacted]																			
14				[redacted]	[redacted]																			
15				[redacted]	[redacted]																			
16				[redacted]	[redacted]																			

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION				SAMPLE CONDITIONS			
							Y/N	Y/N	Y/N	
							Y/N	Y/N	Y/N	
							Y/N	Y/N	Y/N	
							Y/N	Y/N	Y/N	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: **Josh Gravlin**

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY) : **14-May-20**

Temp °C | Received on Ice | Custody Sealed Cooler | Samples Intact

1021 2854 0888

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B40	Light rainfall during sampling.	Light rainfall during sampling. Tic	Sampler	5/14/2020 10:18	MORE DETAILS	Joshua Gravlin
Field Sheet-B76	0.4625	0.476388889	Sampler	5/14/2020 11:26	Incorrect initial entry.	Joshua Gravlin
Chain of Custody-H41	1/1/1900		Sampler	5/14/2020 12:26	Incorrect initial entry.	Joshua Gravlin
Chain of Custody-H42	1		Sampler	5/14/2020 12:27	Incorrect initial entry.	Joshua Gravlin
Field Sheet-F32	Similar.	Sunny and hot.	pcl	5/14/2020 12:45	Incorrect initial entry.	Christopher Lienhardt
Field Sheet-E31	Overcast early with light rainfall (	Overcast early with light rainfall a	pcl	5/14/2020 12:45	more details	Christopher Lienhardt
Field Sheet-B29	Visibly outgoing tide.	Visibly outgoing tide. Bats could	pcl	5/14/2020 12:48	Added sampler comments regarding bats.	Christopher Lienhardt
Field Sheet-B47	Light rainfall during sampling. Tic	Light rainfall during sampling. Tic	pcl	5/14/2020 12:49	Added fish comments by sampler.	Christopher Lienhardt
Field Sheet-B61	Visibly outgoing tide. Pool const	Visibly outgoing tide. Pool constr	pcl	5/14/2020 12:50	Added comments about pool not impacting sample site.	Christopher Lienhardt

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREA ########

DATE	TIME	SITE	Barometer	Temp (°C)	Sp Cond (µ	TDS (mg/L	Sal (ppt)	pH	pH (mV)
5/14/2020	########	af60346	763.6	25.7	54775.9	35604	36.26	7.91	-83.9
5/14/2020	########	af60346	763.6	25.7	54805.1	35623	36.28	7.92	-84.4
5/14/2020	########	af60348	763.9	25.9	54791	35614	36.26	7.86	-80.7
5/14/2020	########	af60347	763.6	26.1	53978.3	35086	35.65	7.9	-83.5
5/14/2020	########	af60349	763.8	25.6	54545.8	35455	36.09	7.91	-83.6
5/14/2020	########	af60349	763.8	25.7	54711.7	35563	36.21	7.94	-85.4
5/14/2020	########	af60349	763.9	25.8	53147.7	34546	35.04	7.88	-82.1
5/14/2020	########	af60349	763.8	26.5	54248.2	35261	35.84	7.89	-83.1
5/14/2020	########	af60350	764.1	25.8	51897.3	33733	34.12	7.91	-84
5/14/2020	########	af60350	764.1	26.7	54229.5	35249	35.82	7.92	-84.4
5/14/2020	########	af60344	764.1	25.8	54597.6	35488	36.12	7.94	-85.5
5/14/2020	########	af60345	764.2	25.4	54556.2	35462	36.1	7.97	-87.3
5/14/2020	########	af60345	764.2	25.4	54564.2	35467	36.11	7.98	-87.9
5/14/2020	########	af60352	764.2	25.4	54563	35466	36.1	7.98	-88.1
5/14/2020	########	af60352	764.2	25.4	54561.9	35465	36.1	7.98	-88.1

ODO (% Si	ODO (mg/l	ODO (% LocalB)
87.1	5.79	86.7
87.2	5.8	86.8
81.8	5.42	81.4
89.7	5.94	89.3
86.5	5.76	86.1
86.5	5.76	86.1
78.2	5.22	77.7
77.7	5.11	77.3
82.2	5.52	81.7
63.8	4.18	63.5
87.1	5.78	86.6
93.5	6.25	93
93.4	6.25	92.9
93.5	6.25	93
93.4	6.24	92.9

Activity ID	Project ID	Activity Start Date Time	Monitoring Location ID	Activity Type	Sample Collection Type	Sample Collection Equipment Name	Matrix	Activity Depth	Total Depth (m)	Org Analyte Name	ADAPT Analyte ID	Analysis Method	Org Result Value	Org Result Unit	Field Blank Batch ID	Equipment Blank Batch ID	Master Activity ID	Trip Blank Batch ID	Value Qualifier	Result Commer	Activity Comments	Sampler Name	Sample Cr	Sample Co
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen	1880	FDEP FT1500	5.79	mg/L	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen	1880	FDEP FT1500	5.80	mg/L	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Dissolved Oxygen	1880	FDEP FT1500	5.42	mg/L	FB_AF60372						Boat passed just prior to sampling. Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Dissolved Oxygen	1880	FDEP FT1500	5.94	mg/L	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen	1880	FDEP FT1500	5.76	mg/L	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Dissolved Oxygen	1880	FDEP FT1500	5.76	mg/L	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	5.22	mg/L	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen	1880	FDEP FT1500	5.11	mg/L	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen	1880	FDEP FT1500	5.52	mg/L	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350BF	MARCO	5/14/2020 10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen	1880	FDEP FT1500	4.18	mg/L	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Dissolved Oxygen	1880	FDEP FT1500	5.78	mg/L	FB_AF60372						Light rainfall during sampling. Unable to determine tidal flow. Tidal c	CLienhard/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Dissolved Oxygen	1880	FDEP FT1500	6.25	mg/L	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60345BF	MARCO	5/14/2020 11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Dissolved Oxygen	1880	FDEP FT1500	6.25	mg/L	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Dissolved Oxygen	1880	FDEP FT1500	6.25	mg/L	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352BFD	MARCO	5/14/2020 11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Dissolved Oxygen	1880	FDEP FT1500	6.24	mg/L	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	86.7	%	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	86.8	%	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	81.4	%	FB_AF60372						Boat passed just prior to sampling. Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	89.1	%	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	86.1	%	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	86.1	%	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	77.7	%	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	77.3	%	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	81.7	%	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350BF	MARCO	5/14/2020 10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	63.5	%	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	86.6	%	FB_AF60372						Light rainfall during sampling. Unable to determine tidal flow. Tidal c	CLienhard/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	93.0	%	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60345BF	MARCO	5/14/2020 11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	92.9	%	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	93.0	%	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352BFD	MARCO	5/14/2020 11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	92.9	%	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	pH	1900	FDEP FT1100	7.91	SU	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	pH	1900	FDEP FT1100	7.92	SU	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	pH	1900	FDEP FT1100	7.86	SU	FB_AF60372						Boat passed just prior to sampling. Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	pH	1900	FDEP FT1100	7.90	SU	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	pH	1900	FDEP FT1100	7.91	SU	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	pH	1900	FDEP FT1100	7.94	SU	FB_AF60372						Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhard/JGra	Direct Gra	Water Bottl
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	7.88	SU	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	pH	1900	FDEP FT1100	7.89	SU	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	pH	1900	FDEP FT1100	7.91	SU	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60350BF	MARCO	5/14/2020 10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	pH	1900	FDEP FT1100	7.92	SU	FB_AF60372						Light rainfall during sampling. Tide appears to be outgoing but stron	CLienhard/JGra	Direct Gra	Water Bottl
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	pH	1900	FDEP FT1100	7.94	SU	FB_AF60372						Light rainfall during sampling. Unable to determine tidal flow. Tidal c	CLienhard/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	pH	1900	FDEP FT1100	7.97	SU	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60345BF	MARCO	5/14/2020 11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	pH	1900	FDEP FT1100	7.98	SU	FB_AF60372						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	pH	1900	FDEP FT1100	7.98	SU	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60352BFD	MARCO	5/14/2020 11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	pH	1900	FDEP FT1100	7.98	SU	FB_AF60372		AF60345				Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhard/JGra	Direct Gra	Water Bottl
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Salinity	1975	FDEP FT1300	36.26	ppth	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Salinity	1975	FDEP FT1300	36.28	ppth	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Salinity	1975	FDEP FT1300	36.26	ppth	FB_AF60372						Boat passed just prior to sampling. Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Salinity	1975	FDEP FT1300	35.65	ppth	FB_AF60372						Visibly outgoing tide.	CLienhard/JGra	Direct Gra	Water Bottl

AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Salinity	1975	FDEP FT1300	36.09	ppth	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Salinity	1975	FDEP FT1300	36.21	ppth	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Salinity	1975	FDEP FT1300	35.04	ppth	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Salinity	1975	FDEP FT1300	35.84	ppth	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Salinity	1975	FDEP FT1300	34.12	ppth	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350BF	MARCO	5/14/2020 10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Salinity	1975	FDEP FT1300	35.82	ppth	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Salinity	1975	FDEP FT1300	36.12	ppth	FB AF60372			Light rainfall during sampling. Unable to determine tidal flow. Tidal (	CLienhardt/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Salinity	1975	FDEP FT1300	36.10	ppth	FB AF60372			Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60345BF	MARCO	5/14/2020 11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Salinity	1975	FDEP FT1300	36.11	ppth	FB AF60372			Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Salinity	1975	FDEP FT1300	36.10	ppth	FB AF60372	AF60345		Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60352BFD	MARCO	5/14/2020 11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Salinity	1975	FDEP FT1300	36.10	ppth	FB AF60372	AF60345		Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	0.80	m	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.00	m	FB AF60372			Boat passed just prior to sampling. Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.20	m	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	0.90	m	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.80	m	FB AF60372		S	Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.40	m	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.10	m	FB AF60372			Light rainfall during sampling. Unable to determine tidal flow. Tidal (	CLienhardt/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.50	m	FB AF60372		S	Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.50	m	FB AF60372	AF60345	S	Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Specific Conductance	1610	FDEP FT1200	54776	umho/cm	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Specific Conductance	1610	FDEP FT1200	54805	umho/cm	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Specific Conductance	1610	FDEP FT1200	54791	umho/cm	FB AF60372			Boat passed just prior to sampling. Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Specific Conductance	1610	FDEP FT1200	53978	umho/cm	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Specific Conductance	1610	FDEP FT1200	54546	umho/cm	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Specific Conductance	1610	FDEP FT1200	54712	umho/cm	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Specific Conductance	1610	FDEP FT1200	53148	umho/cm	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Specific Conductance	1610	FDEP FT1200	54248	umho/cm	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Specific Conductance	1610	FDEP FT1200	51897	umho/cm	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350BF	MARCO	5/14/2020 10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Specific Conductance	1610	FDEP FT1200	54230	umho/cm	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60344F	MARCO	5/14/2020 10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Specific Conductance	1610	FDEP FT1200	54598	umho/cm	FB AF60372			Light rainfall during sampling. Unable to determine tidal flow. Tidal (	CLienhardt/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020 11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Specific Conductance	1610	FDEP FT1200	54556	umho/cm	FB AF60372			Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60345BF	MARCO	5/14/2020 11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Specific Conductance	1610	FDEP FT1200	54564	umho/cm	FB AF60372			Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60352FD	MARCO	5/14/2020 11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Specific Conductance	1610	FDEP FT1200	54563	umho/cm	FB AF60372	AF60345		Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60352BFD	MARCO	5/14/2020 11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Specific Conductance	1610	FDEP FT1200	54562	umho/cm	FB AF60372	AF60345		Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bott
AF60346F	MARCO	5/14/2020 8:26	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Temperature, Water	2030	FDEP FT1400	25.7	deg C	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60346BF	MARCO	5/14/2020 8:27	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Temperature, Water	2030	FDEP FT1400	25.7	deg C	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60348F	MARCO	5/14/2020 8:45	HOLLYHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.30	Temperature, Water	2030	FDEP FT1400	25.9	deg C	FB AF60372			Boat passed just prior to sampling. Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60347F	MARCO	5/14/2020 9:04	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Temperature, Water	2030	FDEP FT1400	26.1	deg C	FB AF60372			Visibly outgoing tide.	CLienhardt/JGra	Direct Gra	Water Bott
AF60349F	MARCO	5/14/2020 9:24	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Temperature, Water	2030	FDEP FT1400	25.6	deg C	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60349BF	MARCO	5/14/2020 9:26	E WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Temperature, Water	2030	FDEP FT1400	25.7	deg C	FB AF60372			Visibly outgoing tide. Bats could be heard upstream of sample site	CLienhardt/JGra	Direct Gra	Water Bott
AF60343F	MARCO	5/14/2020 9:49	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60343BF	MARCO	5/14/2020 9:51	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Temperature, Water	2030	FDEP FT1400	26.5	deg C	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott
AF60350F	MARCO	5/14/2020 10:11	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB AF60372			Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bott

AF60350BF	MARCO	5/14/2020	10:13	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Temperature, Water	2030	FDEP FT1400	25.7	deg C	FB	AF60372								Light rainfall during sampling. Tide appears to be outgoing but stro	CLienhardt/JGra	Direct Gra	Water Bottl
AF60344F	MARCO	5/14/2020	10:35	W WINTERBERRY BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	0.00	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB	AF60372								Light rainfall during sampling. Unable to determine tidal flow. Tidal c	CLienhardt/JGra	Intermedia	Van Dorn E
AF60345F	MARCO	5/14/2020	11:10	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Temperature, Water	2030	FDEP FT1400	25.4	deg C	FB	AF60372								Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bottl
AF60345BF	MARCO	5/14/2020	11:12	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Temperature, Water	2030	FDEP FT1400	25.4	deg C	FB	AF60372								Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bottl
AF60352FD	MARCO	5/14/2020	11:14	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.50	Temperature, Water	2030	FDEP FT1400	25.4	deg C	FB	AF60372		AF60345						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bottl
AF60352BFD	MARCO	5/14/2020	11:16	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	1.20	1.50	Temperature, Water	2030	FDEP FT1400	25.4	deg C	FB	AF60372		AF60345						Visibly outgoing tide. Pool construction occurring at adjacent home	CLienhardt/JGra	Direct Gra	Water Bottl
AF60372	MARCO	5/14/2020	11:26	MCILVAINE	BLANK	BLANK	BLANK	SW	0.3	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	FB	AF60372	BLANK	BLANK	BLANK	BLANK	BLANK		FB taken from CD13269.	CLienhardt/JGra	Direct Gra	Water Bottl

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Field Sampling Report

Date: Thursday, May 14, 2020
Sampler: Krystal Silas
Meter/Notes: Danny Berger

NEFAP ACCREDITED
TNI
FIELD SAMPLING & MEASUREMENT ORGANIZATION

Certificate No
4262.01

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

CCV: Morning

Sonde / Handheld	ProDSS #7	Serial #:	15K101015
Date/Time:	5/14/20 7:01 AM	**Operator:**	Josh Gravlin

Project:	**MARCO**

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
70000	13501	70584	Pass

Associated Calibration File: Calibration_7_051320.xlsm

***** pH *****

pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail
4.00			
7.00			
10.00	13684	10.07	Pass

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.68	101.2	23.2	Pass	8.583	763.3

Notes:

CCV: Afternoon

Date/Time:	5/14/2020 11:32	**Operator:**	Danny Berger

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
10000	11624	10030	Pass
70000	13888	71089	Pass

***** pH *****

pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail
4.00			
7.00	13688	7.11	Pass
10.00	13684	10.02	Pass

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.71	101.3	23.2	Pass	8.592	764.1

Notes:

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** II **Sample Collector:** Krystal Silas **Meter / Notes:** Danny Berger **Date:** 5/14/2020

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	D.O. (% SAT)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF60353	8:34	OLDE_MARCO	25.2	55113	36.52	91.0	6.13	8.00	0.30	[redacted]	1.60	1.40
AF60353B	8:35	OLDE_MARCO	25.3	55117	36.52	88.1	5.92	8.00	1.30	[redacted]	1.60	1.40
Collection Device	Pole Sampler; CDI: 13545			Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Difficult to determine water movement due to wind. Light drizzle while 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)
AF60351	8:47	OLDE_MARCO	[redacted]						[redacted]			
[redacted]												
Collection Device	Sample Container			Cleaning Protocol:	[redacted]	Flow:	[redacted]		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**FB taken from carboy CDI 13267.**										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)
AF60338	9:12	JH_PARK	25.8	54566	36.10	91.8	6.13	7.94	0.30	[redacted]	4.00	1.40
AF60338B	9:15	JH_PARK	25.8	54598	36.12	91.3	6.09	7.96	3.70	[redacted]	4.00	1.40
Collection Device	Pole Sampler; CDI: 13545			Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Difficult to determine water movement due to wind.**										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)
AF60339	9:35	HC_CENTER	25.8	53882	35.59	82.0	5.50	7.85	0.30	[redacted]	1.80	1.80
AF60339B	9:36	HC_CENTER	25.8	53908	35.61	81.4	5.45	7.87	1.50	[redacted]	1.80	1.80
Collection Device	Pole Sampler; CDI: 13545			Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:	[redacted]	pH < 2:	YES
Comments:	**Difficult to determine water movement due to wind. Light drizzle while sampling.**										Sample Type:	**SAMP**

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	Overcast and windly. Very light rain and in the 70s.	Prepared By:	**Danny Berger** Signed: 6/1/2020 1:28:39 PM
Sampling SOP:	FSQM 03-04	24 HRS Prior Weather:	Upper 80s and mostly sunny.	Reviewed By:	*Krystal Silas* Signed: 5/14/2020 12:16:56 PM

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** II **Sample Collector:** Krystal Silas **Meter / Notes:** Danny Berger **Date:** 5/14/2020

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)
AF60340	9:56	COLLIER_BRIDGE	26.0	53775	35.50	78.8	5.27	7.86	0.30		1.40	1.10

Collection Device	Pole Sampler; CDI: 13545	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2: YES
Comments:	**Visible outgoing tide. Drizzled while 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)
AF60341	10:14	KENDALL	25.4	54558	36.10	82.5	5.55	7.86	0.30		1.00	1.00

Collection Device	Pole Sampler; CDI: 13545	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2: YES
Comments:	**Visible outgoing tide. Drizzled while 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)
AF60342	10:36	BARFIELD_BRIDGE	25.3	55081	36.49	91.7	6.17	7.95	0.30		1.80	1.10
AF60342B	10:37	BARFIELD_BRIDGE	25.3	55099	36.51	91.5	6.16	7.99	1.50		1.80	1.10

Collection Device	Pole Sampler; CDI: 13545	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge:	pH < 2: YES
Comments:	**Visible outgoing tide. Drizzled while 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)

Collection Device		Cleaning Protocol:		Flow:		Staff Gauge:	pH < 2:
Comments:							Sample Type:

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	Overcast and windly. Very light rain and in the 70s.	Prepared By:	Danny Berger
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Upper 80s and mostly sunny.	Reviewed By:	Krystal Silas

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO
Run: II
Sample Collector: Krystal Silas
Meter / Notes: Danny Berger
Date: 5/14/2020

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:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Overcast and windly. Very light rain and in the 70s.	
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Upper 80s and mostly sunny.	

Prepared By: Danny Berger
Reviewed By: Krystal Silas

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO **Run:** II **Sample Collector:** Krystal Silas **Meter / Notes:** Danny Berger **Date:** 5/14/2020

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:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No	
Sites Access By:	Truck	Weather:	Overcast and windly. Very light rain and in the 70s.	Prepared By:	Danny Berger
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Upper 80s and mostly sunny.	Reviewed By:	Krystal Silas

Collier County POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

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

Project	MARCO
Sample Collector(s):	
Krystal Silas	
Sample Collector Signature:	

MATRIX CODES
GW Ground Water
SW Surface Water
WW Waste Water
DW Drinking Water
Other_____

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
1G 1000mL HDPE/Ice	76877					
2C 1L Opaque HDPE/Light-shielded/Ice	AF59313					
3S 250ml HDPE/H2SO4/Ice	CDI 13008	16 drops	RP 14990	Fisher	5/14/2020	DB
4F 60ml Opaque HDPE/Filtered/Ice	AF55358					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI 12141					
14 Whatman Polydisc GW 0.45µm	A24365266					

Relinquished By: (Signature)	
Date/Time	5/14/20 12:18 PM
Received By: (Signature)	
Date/Time	5/14/20 12:18 PM
Relinquished By: (Signature)	
Date/Time	
Received By: (Signature)	
Date/Time	

Parameters

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	Turbidity-PC	Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Nitrogen-TKN, Phosphorous-Total, Nitrate-Nitrite, Prep-TKN	Nitrite-PC	Enterolert-PC	TN-PC, CC-Nitrate-N-PC								Lab ID #
							Bottle Codes													
							1G	2C	3S	4F	5J	Calc								
							# of sample Containers Submited													
5/14/2020	8:34	8.00	55113	0.30	OLDE_MARCO	SW	1	1	1	1	1									AF60353
5/14/2020	8:47	#N/A	#N/A	#N/A	OLDE_MARCO	SW	1	1	1	1	1									AF60351
5/14/2020	9:12	7.94	54566	0.30	JH_PARK	SW	1	1	1	1	1									AF60338
5/14/2020	9:35	7.85	53882	0.30	HC_CENTER	SW	1	1	1	1	1									AF60339
5/14/2020	9:56	7.86	53775	0.30	COLLIER_BRIDGE	SW	1	1	1	1	1									AF60340
5/14/2020	10:14	7.86	54558	0.30	KENDALL	SW	1	1	1	1	1									AF60341
5/14/2020	10:36	7.95	55081	0.30	BARFIELD_BRIDGE	SW	1	1	1	1	1									AF60342

Sample Check-In

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?	

Notes:

Sulfuric bottles shipped to PACE.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Collier County Pollution Control & Prevention	Report To: Nosbel Perez	Attention:
Address: 3339 Tamiami Trail East, Suite 304	Copy To:	Company Name:
Naples, FL 34112		Address:
Email To: rhondawatkins@colliergov.net	Purchase Order No.:	Pace Quote Reference:
Phone: 239-252-2502 Fax: 239-252-2574	Project: MARCO	Pace Project Manager:
Requested Due Date/TAT: **Standard**	Project: MARCO	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER_____

SITE LOCATION GA IL IN MI NC OH SC WI OTHER FL

ITEM #	Item ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED DATE	COLLECTED TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH/Zn Acetate	Na2S2O3	Methanol	Other	Filtered (Y/N) Requested: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
1	AF60353	SW	G	[redacted]	[redacted]	5/14/20	8:34 AM	25.20	1		1							1		
2	AF60351	SW	G	[redacted]	[redacted]	5/14/20	8:47 AM		1		1							1		
3	AF60338	SW	G	[redacted]	[redacted]	5/14/20	9:12 AM	25.80	1		1							1		
4	AF60339	SW	G	[redacted]	[redacted]	5/14/20	9:35 AM	25.80	1		1							1		
5	AF60340	SW	G	[redacted]	[redacted]	5/14/20	9:56 AM	26.00	1		1							1		
6	AF60341	SW	G	[redacted]	[redacted]	5/14/20	10:14 AM	25.40	1		1							1		
7	AF60342	SW	G	[redacted]	[redacted]	5/14/20	10:36 AM	25.30	1		1							1		
8				[redacted]	[redacted]															
9				[redacted]	[redacted]															
10				[redacted]	[redacted]															
11				[redacted]	[redacted]															
12				[redacted]	[redacted]															
13				[redacted]																
14				[redacted]																
15				[redacted]																
16				[redacted]																

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
CCPC	5/14/20	15:30	FedEx	05/14/20	

SAMPLE CONDITIONS

Temp °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: **Krystal Silas**

SIGNATURE of SAMPLER:

DATE Signed (MM / DD / YY) : **14-May-20**

FedEx tracking: 1021 2854 0888

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B22	Difficult to determine water move	Difficult to determine water move	Sampler	5/14/2020 9:22	Added wind note.	Danny Berger
Field Sheet-F32	Upper 80s and mostly sunny,	Upper 80s and mostly sunny.	Sampler	5/14/2020 12:00	Incorrect initial entry.	Danny Berger
Pace Chain of Custody-AN32	0.666666667	5/14/2020	DannyBerger	6/1/2020 13:30	Incorrect initial entry.	Danny Berger

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREA ########

DATE	TIME	SITE	Barometer	Temp (°C)	Cond (µS/c	Sp Cond (µ	Sal (ppt)	pH	pH (mV)
5/14/2020	########	af60353	764.8	25.2	55364.3	55113.1	36.52	8	-85.4
5/14/2020	########	af60353	764.8	25.3	55380.4	55116.8	36.52	8	-85.2
5/14/2020	########	af60338	764.6	25.8	55441.1	54566.2	36.1	7.94	-81.9
5/14/2020	########	af60338	764.6	25.8	55474.4	54598.2	36.12	7.96	-83.2
5/14/2020	########	af60339	764.9	25.8	54743.4	53882.3	35.59	7.85	-76.7
5/14/2020	########	af60339	764.8	25.8	54769.1	53908.4	35.61	7.87	-77.5
5/14/2020	########	af60340	764.9	26	54769.9	53775	35.5	7.86	-77.1
5/14/2020	########	af60341	765.2	25.4	54981.4	54557.7	36.1	7.86	-77.2
5/14/2020	########	af60342	765.2	25.3	55408.8	55081	36.49	7.95	-82.5
5/14/2020	########	af60342	765.3	25.3	55432.9	55099	36.51	7.99	-84.5

ODO (mg/l	ODO (% LocalB)
6.13	91
5.92	88.1
6.13	91.8
6.09	91.3
5.5	82
5.45	81.4
5.27	78.8
5.55	82.5
6.17	91.7
6.16	91.5

Activity ID	Project ID	Activity Start Date Time	Monitoring Location ID	Activity Type	Sample Collection Type	Sample Collection Equipment Name	Matrix	Activity Depth	Total Depth (m)	Org Analyte Name	ADAPT Analyte ID	Analysis Method	Org Result Value	Org Result Unit	Field Blank Batch ID	Equipment Blank Batch ID	Master Activity ID	Trip Blank Batch ID	Value Qualifier	Result Commer	Activity Comments	Sampler Name	Sample Cr	Sample Co
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Dissolved Oxygen	1880	FDEP FT1500	6.13	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Dissolved Oxygen	1880	FDEP FT1500	5.92	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Dissolved Oxygen	1880	FDEP FT1500	6.13	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	Dissolved Oxygen	1880	FDEP FT1500	6.09	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	5.50	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen	1880	FDEP FT1500	5.45	mg/L	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Dissolved Oxygen	1880	FDEP FT1500	5.27	mg/L	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Dissolved Oxygen	1880	FDEP FT1500	5.55	mg/L	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	6.17	mg/L	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen	1880	FDEP FT1500	6.16	mg/L	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.0	%	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	88.1	%	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.8	%	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.3	%	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	89.9	%	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	81.4	%	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	78.8	%	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	82.5	%	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.7	%	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.5	%	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	pH	1900	FDEP FT1100	8.00	SU	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	pH	1900	FDEP FT1100	8.00	SU	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	pH	1900	FDEP FT1100	7.94	SU	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	pH	1900	FDEP FT1100	7.96	SU	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	7.85	SU	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	pH	1900	FDEP FT1100	7.87	SU	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	pH	1900	FDEP FT1100	7.86	SU	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	pH	1900	FDEP FT1100	7.86	SU	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	7.95	SU	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	pH	1900	FDEP FT1100	7.99	SU	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Salinity	1975	FDEP FT1300	36.52	ppth	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Salinity	1975	FDEP FT1300	36.52	ppth	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Salinity	1975	FDEP FT1300	36.10	ppth	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	Salinity	1975	FDEP FT1300	36.12	ppth	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Salinity	1975	FDEP FT1300	35.59	ppth	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Salinity	1975	FDEP FT1300	35.61	ppth	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Salinity	1975	FDEP FT1300	35.50	ppth	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Salinity	1975	FDEP FT1300	36.10	ppth	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Salinity	1975	FDEP FT1300	36.49	ppth	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Salinity	1975	FDEP FT1300	36.51	ppth	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.40	m	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.40	m	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.80	m	FB_AF60351				S		Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.10	m	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.00	m	FB_AF60351				S		Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Depth, Secchi Disk Depth	WIN-010	FDEP FT1700	1.10	m	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Specific Conductance	1610	FDEP FT1200	56113	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Specific Conductance	1610	FDEP FT1200	55117	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Specific Conductance	1610	FDEP FT1200	54566	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	Specific Conductance	1610	FDEP FT1200	54598	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Specific Conductance	1610	FDEP FT1200	53882	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Specific Conductance	1610	FDEP FT1200	53908	umho/cm	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Specific Conductance	1610	FDEP FT1200	53775	umho/cm	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Specific Conductance	1610	FDEP FT1200	54558	umho/cm	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Specific Conductance	1610	FDEP FT1200	55081	umho/cm	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Specific Conductance	1610	FDEP FT1200	55099	umho/cm	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60353F	MARCO	5/14/2020 8:34	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Temperature, Water	2030	FDEP FT1400	25.2	deg C	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60353BF	MARCO	5/14/2020 8:35	OLDE_MARCO	Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Temperature, Water	2030	FDEP FT1400	25.3	deg C	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60338F	MARCO	5/14/2020 9:12	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	4.00	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60338BF	MARCO	5/14/2020 9:15	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	SW	3.70	4.00	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB_AF60351						Difficult to determine water movement due to wind. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60339F	MARCO	5/14/2020 9:35	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60339BF	MARCO	5/14/2020 9:36	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Temperature, Water	2030	FDEP FT1400	25.8	deg C	FB_AF60351						Difficult to determine water movement due to wind. Light drizzle wh	DBerger/KSlas	Direct Gra	Water Bottl
AF60340F	MARCO	5/14/2020 9:56	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.40	Temperature, Water	2030	FDEP FT1400	26.0	deg C	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60341F	MARCO	5/14/2020 10:14	KENDALL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.00	Temperature, Water	2030	FDEP FT1400	25.4	deg C	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342F	MARCO	5/14/2020 10:36	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Temperature, Water	2030	FDEP FT1400	25.3	deg C	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60342BF	MARCO	5/14/2020 10:37	BARFIELD_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Temperature, Water	2030	FDEP FT1400	25.3	deg C	FB_AF60351						Visible outgoing tide. Drizzled while sampling. Flow.	DBerger/KSlas	Direct Gra	Water Bottl
AF60351	MARCO	5/14/2020 8:47	OLDE_MARCO	BLANK	BLANK	BLANK	SW	0.3	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	FB_AF60351	BLANK	BLANK	BLANK	BLANK	BLANK	FB taken from carboy CDI 13267.	DBerger/KSlas	Direct Gra	Water Bottl

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

July 06, 2020

Nosbel Perez
Collier County Pollution Contr
3339 Tamiami Trail E
Suite 304
Naples, FL 34112

RE: Project: MARCO
Pace Project No.: 35550376

Dear Nosbel Perez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 15, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

Revised report. Total Nitrogen added to the report.

Revision 2 of the report. Total Nitrogen values corrected.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Martha Montero
martha.montero@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Randall McDaniel
Rhonda Watkins, Collier County Pollution Contr

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: MARCO
Pace Project No.: 35550376

Pace Analytical Services Ormond Beach
8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: MARCO
Pace Project No.: 35550376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35550376001	**AF60346**	Water	05/14/20 08:26	05/15/20 10:35
35550376002	**AF60348**	Water	05/14/20 08:45	05/15/20 10:35
35550376003	**AF60347**	Water	05/14/20 09:04	05/15/20 10:35
35550376004	**AF60349**	Water	05/14/20 09:24	05/15/20 10:35
35550376005	**AF60343**	Water	05/14/20 09:49	05/15/20 10:35
35550376006	**AF60350**	Water	05/14/20 10:11	05/15/20 10:35
35550376007	**AF60344**	Water	05/14/20 10:35	05/15/20 10:35
35550376008	**AF60345**	Water	05/14/20 11:10	05/15/20 10:35
35550376009	**AF60352**	Water	05/14/20 11:14	05/15/20 10:35
35550376010	**AF60372**	Water	05/14/20 11:26	05/15/20 10:35

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8 East Tower Circle
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SAMPLE ANALYTE COUNT

Project: MARCO
Pace Project No.: 35550376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35550376001	**AF60346**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376002	**AF60348**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376003	**AF60347**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376004	**AF60349**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376005	**AF60343**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376006	**AF60350**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376007	**AF60344**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550376008	**AF60345**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550376009	**AF60352**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550376010	**AF60372**	TKN+NOx Calculation	NMT	1	PASI-O

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: MARCO
Pace Project No.: 35550376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60346 **Lab ID: 35550376001** Collected: 05/14/20 08:26 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.48 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.48 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:18	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:24		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.11**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:18	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60348 **Lab ID: 35550376002** Collected: 05/14/20 08:45 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.53**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.53**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:19	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:28		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.088 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:19	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60347 **Lab ID: 35550376003** Collected: 05/14/20 09:04 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.49 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.49 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:20	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:29		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.093 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:20	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60349 **Lab ID: 35550376004** Collected: 05/14/20 09:24 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.49 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.49 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:21	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:31		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.096 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:21	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60343 **Lab ID: 35550376005** Collected: 05/14/20 09:49 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.47 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.47 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:22	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:35		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.093 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:22	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60350 **Lab ID: 35550376006** Collected: 05/14/20 10:11 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.46 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.46 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:24	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:36		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.089 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:24	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60344 **Lab ID: 35550376007** Collected: 05/14/20 10:35 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.43 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.43 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:25	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:37		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.092 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:25	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Ormond Beach, FL 32174
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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60345 **Lab ID: 35550376008** Collected: 05/14/20 11:10 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.40 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.40 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:30	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:38		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.088 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:10	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60352 **Lab ID: 35550376009** Collected: 05/14/20 11:14 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.41 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.41 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:31	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:40		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.082 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:11	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550376

Sample: AF60372 **Lab ID: 35550376010** Collected: 05/14/20 11:26 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.086 U**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.086 U**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:32	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:44		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.050 U**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:12	7723-14-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550376

QC Batch: 634089
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

METHOD BLANK: 3448260 Matrix: Water
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.086 U	0.50	0.086	05/23/20 12:04	

LABORATORY CONTROL SAMPLE: 3448261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	20	18.5	93	90-110	

MATRIX SPIKE SAMPLE: 3448263

Parameter	Units	35550375004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	20	18.4	90	90-110	

MATRIX SPIKE SAMPLE: 3448265

Parameter	Units	35550376007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	20	18.4	90	90-110	

SAMPLE DUPLICATE: 3448262

Parameter	Units	35550375004 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	0.44 I		20	

SAMPLE DUPLICATE: 3448264

Parameter	Units	35550376007 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	0.45 I		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550376

QC Batch: 633867
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

METHOD BLANK: 3447283 Matrix: Water
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.050	0.033	05/19/20 08:08	

LABORATORY CONTROL SAMPLE: 3447284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2	1.9	96	90-110	

MATRIX SPIKE SAMPLE: 3447286

Parameter	Units	35550375001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	2	1.8	91	90-110	

MATRIX SPIKE SAMPLE: 3447288

Parameter	Units	35550376004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	2	1.8	92	90-110	

SAMPLE DUPLICATE: 3447285

Parameter	Units	35550375001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.033 U		20	

SAMPLE DUPLICATE: 3447287

Parameter	Units	35550376004 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.033 U		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550376

QC Batch: 634090
QC Batch Method: EPA 365.4
Analysis Method: EPA 365.4
Analysis Description: 365.4 Phosphorus
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

METHOD BLANK: 3448268 Matrix: Water
Associated Lab Samples: 35550376001, 35550376002, 35550376003, 35550376004, 35550376005, 35550376006, 35550376007, 35550376008, 35550376009, 35550376010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus, Total (as P)	mg/L	0.050 U	0.10	0.050	05/23/20 16:16	

LABORATORY CONTROL SAMPLE: 3448269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	4	3.8	96	90-110	

MATRIX SPIKE SAMPLE: 3448271

Parameter	Units	35550375004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.089 I	4	4.2	103	80-120	

MATRIX SPIKE SAMPLE: 3448273

Parameter	Units	35550376007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.092 I	4	4.2	102	80-120	

SAMPLE DUPLICATE: 3448270

Parameter	Units	35550375004 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.089 I	0.090 I		20	

SAMPLE DUPLICATE: 3448272

Parameter	Units	35550376007 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.092 I	0.088 I		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: MARCO
Pace Project No.: 35550376

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Compound was analyzed for but not detected.

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MARCO
Pace Project No.: 35550376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35550376001	**AF60346**	TKN+NOx Calculation	645213		
35550376002	**AF60348**	TKN+NOx Calculation	645213		
35550376003	**AF60347**	TKN+NOx Calculation	645213		
35550376004	**AF60349**	TKN+NOx Calculation	645213		
35550376005	**AF60343**	TKN+NOx Calculation	645213		
35550376006	**AF60350**	TKN+NOx Calculation	645213		
35550376007	**AF60344**	TKN+NOx Calculation	645213		
35550376008	**AF60345**	TKN+NOx Calculation	645213		
35550376009	**AF60352**	TKN+NOx Calculation	645213		
35550376010	**AF60372**	TKN+NOx Calculation	645213		
35550376001	**AF60346**	EPA 351.2	634089	EPA 351.2	635091
35550376002	**AF60348**	EPA 351.2	634089	EPA 351.2	635091
35550376003	**AF60347**	EPA 351.2	634089	EPA 351.2	635091
35550376004	**AF60349**	EPA 351.2	634089	EPA 351.2	635091
35550376005	**AF60343**	EPA 351.2	634089	EPA 351.2	635091
35550376006	**AF60350**	EPA 351.2	634089	EPA 351.2	635091
35550376007	**AF60344**	EPA 351.2	634089	EPA 351.2	635091
35550376008	**AF60345**	EPA 351.2	634089	EPA 351.2	635091
35550376009	**AF60352**	EPA 351.2	634089	EPA 351.2	635091
35550376010	**AF60372**	EPA 351.2	634089	EPA 351.2	635091
35550376001	**AF60346**	EPA 353.2	633867		
35550376002	**AF60348**	EPA 353.2	633867		
35550376003	**AF60347**	EPA 353.2	633867		
35550376004	**AF60349**	EPA 353.2	633867		
35550376005	**AF60343**	EPA 353.2	633867		
35550376006	**AF60350**	EPA 353.2	633867		
35550376007	**AF60344**	EPA 353.2	633867		
35550376008	**AF60345**	EPA 353.2	633867		
35550376009	**AF60352**	EPA 353.2	633867		
35550376010	**AF60372**	EPA 353.2	633867		
35550376001	**AF60346**	EPA 365.4	634090	EPA 365.4	635092
35550376002	**AF60348**	EPA 365.4	634090	EPA 365.4	635092
35550376003	**AF60347**	EPA 365.4	634090	EPA 365.4	635092
35550376004	**AF60349**	EPA 365.4	634090	EPA 365.4	635092
35550376005	**AF60343**	EPA 365.4	634090	EPA 365.4	635092
35550376006	**AF60350**	EPA 365.4	634090	EPA 365.4	635092
35550376007	**AF60344**	EPA 365.4	634090	EPA 365.4	635092
35550376008	**AF60345**	EPA 365.4	634090	EPA 365.4	635092
35550376009	**AF60352**	EPA 365.4	634090	EPA 365.4	635092
35550376010	**AF60372**	EPA 365.4	634090	EPA 365.4	635092

WO# : 35550376

35550376

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A — Required Client Information:

Company: Collier County Pollution Control & Prevention
Address: 3339 Tamiami Trail East, Suite 304
Naples, FL 34112
Email To: rhondawatkins@colliergov.net
Phone: 239-252-2502 Fax: 239-252-2574
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Nosbel Perez
Copy To:
Purchase Order No.:
Project: MARCO
Project: MARCO

Section C — Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER_____

SITE LOCATION: GA IL IN MI NC OH SC WI OTHER FL

ITEM #	Item ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED DATE	COLLECTED TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH/Zn Acetate	Na2S2O3	Methanol	Other	Filtered (Y/N)	Requested: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
1	AF60346	SW	G			5/14/20	8:26 AM	25.70	1		1								1		
2	AF60348	SW	G			5/14/20	8:45 AM	25.90	1		1								1		
3	AF60347	SW	G			5/14/20	9:04 AM	26.10	1		1								1		
4	AF60349	SW	G			5/14/20	9:24 AM	25.60	1		1								1		
5	AF60343	SW	G			5/14/20	9:49 AM	25.80	1		1								1		
6	AF60350	SW	G			5/14/20	10:11 AM	25.80	1		1								1		
7	AF60344	SW	G			5/14/20	10:35 AM	25.80	1		1								1		
8	AF60345	SW	G			5/14/20	11:10 AM	25.40	1		1								1		
9	AF60352	SW	G			5/14/20	11:14 AM	25.40	1		1								1		
10	AF60372	SW	G			5/14/20	11:26 AM		1		1								1		
11																					
12																					
13																					
14																					
15																					
16																					

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION				SAMPLE CONDITIONS		
			BRN/BOCC	5/15/2020	3:19		Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Josh Gravlin
SIGNATURE of SAMPLER:
DATE Signed (MM / DD / YY): 14-May-20

Temp °C | Received on Ice | Custody Sealed Cooler | Samples Intact

1021 2854 0888

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: May 30, 2018
	Document No.: F-FL-C-007 rev. 13	Issuing Authority: Pace Florida Quality Office

WO#: 35550376
PM: MIM Due Date: 05/22/20
CLIENT: COLLCTY

orm (SCUR)

Proje
Project Mana
Client:

Date and Initials of person:
Examining contents: BLN
Label:
Deliver:
pH:

Thermometer Used: T353 Date: 5/15/20 Time: 1850 Initials: I.M.

State of Origin: ☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C	1.9 (Visual)	0 (Correction Factor)	1.9 (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☑ Standard Overnight ☐ Ground ☐ International Priority ☐ Other

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☑ Unknown

Tracking # NA

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals intact:** ☐ Yes ☐ No **Ice:** (Wet) Blue Dry None

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty:

Comments:

Chain of Custody Present	☑Yes ☐ No ☐N/A	
Chain of Custody Filled Out	☑Yes ☐ No ☐N/A	
Relinquished Signature & Sampler Name COC BT 5/15	☐Yes ☑ No ☐N/A	No relinquish
Samples Arrived within Hold Time	☑Yes ☐ No ☐N/A	
Rush TAT requested on COC	☐Yes ☑ No ☐N/A	
Sufficient Volume	☑Yes ☐ No ☐N/A	
Correct Containers Used	☑Yes ☐ No ☐N/A	
Containers Intact	☑Yes ☐ No ☐N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐Yes ☑ No ☐N/A	No times on containers, SEL comment
All containers needing acid/base preservation have been checked.	☐Yes ☐ No ☐N/A	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☐Yes ☐ No ☐N/A	Preservative: Lot #/Trace #: Date: Time: Initials:
Headspace in VOA Vials? (>6mm):	☐Yes ☐ No ☑N/A	
Trip Blank Present:	☐Yes ☐ No ☑N/A	

Client Notification/ Resolution:
Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments): Project requests Chlorophyll but containers are HNO3 preserved + say NO2/ND3, HCl, EDP

Project Manager Review: Date:

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

July 06, 2020

Nosbel Perez
Collier County Pollution Contr
3339 Tamiami Trail E
Suite 304
Naples, FL 34112

RE: Project: MARCO
Pace Project No.: 35550375

Dear Nosbel Perez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 15, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

Revised report. Total nitrogen added to the report.

Revision 2 of the report. Total Nitrogen values corrected.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Martha Montero
martha.montero@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Randall McDaniel
Rhonda Watkins, Collier County Pollution Contr

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: MARCO
Pace Project No.: 35550375

Pace Analytical Services Ormond Beach
8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE SUMMARY

Project: MARCO
Pace Project No.: 35550375

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35550375001	**AF60353**	Water	05/14/20 08:34	05/15/20 10:35
35550375002	**AF60351**	Water	05/14/20 08:47	05/15/20 10:35
35550375003	**AF60338**	Water	05/14/20 09:12	05/15/20 10:35
35550375004	**AF60339**	Water	05/14/20 09:35	05/15/20 10:35
35550375005	**AF60340**	Water	05/14/20 09:56	05/15/20 10:35
35550375006	**AF60341**	Water	05/14/20 10:14	05/15/20 10:35
35550375007	**AF60342**	Water	05/14/20 10:36	05/15/20 10:35

Pace Analytical Services, LLC
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE ANALYTE COUNT

Project: MARCO
Pace Project No.: 35550375

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35550375001	**AF60353**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550375002	**AF60351**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O
35550375003	**AF60338**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550375004	**AF60339**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550375005	**AF60340**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550375006	**AF60341**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	TM3	1	PASI-O
35550375007	**AF60342**	TKN+NOx Calculation	NMT	1	PASI-O
		EPA 351.2	JDW	1	PASI-O
		EPA 353.2	CLL	1	PASI-O
		EPA 365.4	JDW	1	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60353 **Lab ID: 35550375001** Collected: 05/14/20 08:34 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.41 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.41 I**	mg/L	0.50	0.086	1	05/21/20 08:59	05/22/20 15:16	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:13		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.050 U**	mg/L	0.10	0.050	1	05/21/20 08:59	05/22/20 15:16	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60351 **Lab ID: 35550375002** Collected: 05/14/20 08:47 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.086 U**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.086 U**	mg/L	0.50	0.086	1	05/21/20 08:59	05/22/20 15:17	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:17		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.050 U**	mg/L	0.10	0.050	1	05/21/20 08:59	05/22/20 15:17	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60338 **Lab ID: 35550375003** Collected: 05/14/20 09:12 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.48 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.48 I**	mg/L	0.50	0.086	1	05/21/20 08:59	05/22/20 15:18	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:18		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.089 I**	mg/L	0.10	0.050	1	05/21/20 08:59	05/23/20 17:10	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60339 **Lab ID: 35550375004** Collected: 05/14/20 09:35 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.43 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.43 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:09	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:19		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.089 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:02	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60340 **Lab ID: 35550375005** Collected: 05/14/20 09:56 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.47 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.47 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:12	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:21		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.091 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:06	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60341 **Lab ID: 35550375006** Collected: 05/14/20 10:14 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.51**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.51**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:14	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:22		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.093 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 16:07	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MARCO
Pace Project No.: 35550375

Sample: AF60342 **Lab ID: 35550375007** Collected: 05/14/20 10:36 Received: 05/15/20 10:35 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Method: TKN+NOx Calculation Pace Analytical Services - Ormond Beach								
Total Nitrogen	**0.46 I**	mg/L	0.50	0.086	1		07/01/20 09:44		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Ormond Beach								
Nitrogen, Kjeldahl, Total	**0.46 I**	mg/L	0.50	0.086	1	05/21/20 09:36	05/23/20 12:17	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2 Pace Analytical Services - Ormond Beach								
Nitrogen, NO2 plus NO3	**0.033 U**	mg/L	0.050	0.033	1		05/19/20 08:23		
365.4 Phosphorus, Total	Analytical Method: EPA 365.4 Preparation Method: EPA 365.4 Pace Analytical Services - Ormond Beach								
Phosphorus, Total (as P)	**0.089 I**	mg/L	0.10	0.050	1	05/21/20 09:36	05/23/20 12:17	7723-14-0	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550375

QC Batch: 634082
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550375001, 35550375002, 35550375003

METHOD BLANK: 3448193 Matrix: Water
Associated Lab Samples: 35550375001, 35550375002, 35550375003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.086 U	0.50	0.086	05/22/20 14:46	

LABORATORY CONTROL SAMPLE: 3448194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	20	18.6	93	90-110	

MATRIX SPIKE SAMPLE: 3448196

Parameter	Units	35550261001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.2	20	19.5	91	90-110	

MATRIX SPIKE SAMPLE: 3448198

Parameter	Units	35550320006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	20	18.8	93	90-110	

SAMPLE DUPLICATE: 3448195

Parameter	Units	35550261001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.2	1.1	6	20	

SAMPLE DUPLICATE: 3448197

Parameter	Units	35550320006 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.27 I		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550375

QC Batch: 634089 | Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 | Analysis Description: 351.2 TKN
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550375004, 35550375005, 35550375006, 35550375007

METHOD BLANK: 3448260 Matrix: Water
Associated Lab Samples: 35550375004, 35550375005, 35550375006, 35550375007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.086 U	0.50	0.086	05/23/20 12:04	

LABORATORY CONTROL SAMPLE: 3448261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	20	18.5	93	90-110	

MATRIX SPIKE SAMPLE: 3448263

Parameter	Units	35550375004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	20	18.4	90	90-110	

MATRIX SPIKE SAMPLE: 3448265

Parameter	Units	35550376007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	20	18.4	90	90-110	

SAMPLE DUPLICATE: 3448262

Parameter	Units	35550375004 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	0.44 I		20	

SAMPLE DUPLICATE: 3448264

Parameter	Units	35550376007 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.43 I	0.45 I		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550375

QC Batch: 633867 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, preserved
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550375001, 35550375002, 35550375003, 35550375004, 35550375005, 35550375006, 35550375007

METHOD BLANK: 3447283 Matrix: Water
Associated Lab Samples: 35550375001, 35550375002, 35550375003, 35550375004, 35550375005, 35550375006, 35550375007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.050	0.033	05/19/20 08:08	

LABORATORY CONTROL SAMPLE: 3447284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2	1.9	96	90-110	

MATRIX SPIKE SAMPLE: 3447286

Parameter	Units	35550375001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	2	1.8	91	90-110	

MATRIX SPIKE SAMPLE: 3447288

Parameter	Units	35550376004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	2	1.8	92	90-110	

SAMPLE DUPLICATE: 3447285

Parameter	Units	35550375001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.033 U		20	

SAMPLE DUPLICATE: 3447287

Parameter	Units	35550376004 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.033 U	0.033 U		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550375

QC Batch: 634085
QC Batch Method: EPA 365.4
Analysis Method: EPA 365.4
Analysis Description: 365.4 Phosphorus
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550375001, 35550375002, 35550375003

METHOD BLANK: 3448223 Matrix: Water
Associated Lab Samples: 35550375001, 35550375002, 35550375003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus, Total (as P)	mg/L	0.050 U	0.10	0.050	05/22/20 15:19	

LABORATORY CONTROL SAMPLE: 3448224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	4	3.8	96	90-110	

MATRIX SPIKE SAMPLE: 3448226

Parameter	Units	35550261001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.16	4	3.9	94	80-120	

MATRIX SPIKE SAMPLE: 3448228

Parameter	Units	35550320006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.35	4	4.4	101	80-120	

SAMPLE DUPLICATE: 3448225

Parameter	Units	35550261001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.16	0.19	17	20	

SAMPLE DUPLICATE: 3448227

Parameter	Units	35550320006 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.35	0.42	17	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MARCO
Pace Project No.: 35550375

QC Batch: 634090
QC Batch Method: EPA 365.4
Analysis Method: EPA 365.4
Analysis Description: 365.4 Phosphorus
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35550375004, 35550375005, 35550375006, 35550375007

METHOD BLANK: 3448268 Matrix: Water
Associated Lab Samples: 35550375004, 35550375005, 35550375006, 35550375007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus, Total (as P)	mg/L	0.050 U	0.10	0.050	05/23/20 16:16	

LABORATORY CONTROL SAMPLE: 3448269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	4	3.8	96	90-110	

MATRIX SPIKE SAMPLE: 3448271

Parameter	Units	35550375004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.089 I	4	4.2	103	80-120	

MATRIX SPIKE SAMPLE: 3448273

Parameter	Units	35550376007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L	0.092 I	4	4.2	102	80-120	

SAMPLE DUPLICATE: 3448270

Parameter	Units	35550375004 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.089 I	0.090 I		20	

SAMPLE DUPLICATE: 3448272

Parameter	Units	35550376007 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus, Total (as P)	mg/L	0.092 I	0.088 I		20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: MARCO
Pace Project No.: 35550375

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Compound was analyzed for but not detected.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MARCO
Pace Project No.: 35550375

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35550375001	**AF60353**	TKN+NOx Calculation	645213		
35550375002	**AF60351**	TKN+NOx Calculation	645213		
35550375003	**AF60338**	TKN+NOx Calculation	645213		
35550375004	**AF60339**	TKN+NOx Calculation	645213		
35550375005	**AF60340**	TKN+NOx Calculation	645213		
35550375006	**AF60341**	TKN+NOx Calculation	645213		
35550375007	**AF60342**	TKN+NOx Calculation	645213		
35550375001	**AF60353**	EPA 351.2	634082	EPA 351.2	635085
35550375002	**AF60351**	EPA 351.2	634082	EPA 351.2	635085
35550375003	**AF60338**	EPA 351.2	634082	EPA 351.2	635085
35550375004	**AF60339**	EPA 351.2	634089	EPA 351.2	635091
35550375005	**AF60340**	EPA 351.2	634089	EPA 351.2	635091
35550375006	**AF60341**	EPA 351.2	634089	EPA 351.2	635091
35550375007	**AF60342**	EPA 351.2	634089	EPA 351.2	635091
35550375001	**AF60353**	EPA 353.2	633867		
35550375002	**AF60351**	EPA 353.2	633867		
35550375003	**AF60338**	EPA 353.2	633867		
35550375004	**AF60339**	EPA 353.2	633867		
35550375005	**AF60340**	EPA 353.2	633867		
35550375006	**AF60341**	EPA 353.2	633867		
35550375007	**AF60342**	EPA 353.2	633867		
35550375001	**AF60353**	EPA 365.4	634085	EPA 365.4	635088
35550375002	**AF60351**	EPA 365.4	634085	EPA 365.4	635088
35550375003	**AF60338**	EPA 365.4	634085	EPA 365.4	635088
35550375004	**AF60339**	EPA 365.4	634090	EPA 365.4	635092
35550375005	**AF60340**	EPA 365.4	634090	EPA 365.4	635092
35550375006	**AF60341**	EPA 365.4	634090	EPA 365.4	635092
35550375007	**AF60342**	EPA 365.4	634090	EPA 365.4	635092

WO# : 35550375

35550375

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company: Collier County Pollution Control & Prevention	
Address: 3339 Tamiami Trail East, Suite 304	
Naples, FL 34112	
Email To: rhondawatkins@colliergov.net	
Phone: 239-252-2502	Fax: 239-252-2574
Requested Due Date/TAT: Standard	

Section B — Required Project Information:

Report To: Nosbel Perez	
Copy To:	
Purchase Order No.:	
Project: MARCO	
Project: MARCO	

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

Page: 1 of 1

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER_____

SITE LOCATION: GA IL IN MI NC OH SC WI OTHER FL

ITEM #	Item ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH/Zn Acetate	Na2S2O3	Methanol	Other	Filtered (Y/N)	Requested: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
1	AF60353	SW	G	5/14/20	8:34 AM	25.20	1		1								1		
2	AF60351	SW	G	5/14/20	8:47 AM		1		1								1		
3	AF60338	SW	G	5/14/20	9:12 AM	25.80	1		1								1		
4	AF60339	SW	G	5/14/20	9:35 AM	25.80	1		1								1		
5	AF60340	SW	G	5/14/20	9:56 AM	26.00	1		1								1		
6	AF60341	SW	G	5/14/20	10:14 AM	25.40	1		1								1		
7	AF60342	SW	G	5/14/20	10:36 AM	25.30	1		1								1		
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION			SAMPLE CONDITIONS			
CCPC	5/14/20	15:30	FedEx	01/00/00			Y/N	Y/N	Y/N
			BRN/Paul	5/15/20	1035	1.9	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Krystal Silas

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 14-May-20

Temp °C | Received on Ice | Custody Sealed Cooler | Samples Intact

FedEx tracking: 1021 2854 0888

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 13	Document Revised: May 30, 2018 Issuing Authority: Pace Florida Quality Office

WO# : 35550375
PM: MIM Due Date: 05/22/20
CLIENT: COLLCTY

Form (SCUR)

Proje
Project Mana
Client:

Date and Initials of person:
Examining contents: BN
Label:
Deliver:
pH:

Thermometer Used: T353 Date: 5/15/20 Time: 1850 Initials: I.M.

State of Origin: ☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C	1.9 (Visual)	0. (Correction Factor)	1.9 (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☑ Standard Overnight ☐ Ground ☐ International Priority ☐ Other

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☑ Unknown

Tracking # NA

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals intact:** ☐ Yes ☐ No **Ice:** (Wet) Blue Dry None

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty:

		Comments:
Chain of Custody Present	☑Yes ☐ No ☐N/A	
Chain of Custody Filled Out	☑Yes ☐ No ☐N/A	
Relinquished Signature & Sampler Name COC	☑Yes ☐ No ☐N/A BR 5/15	No relinquish
Samples Arrived within Hold Time	☑Yes ☐ No ☐N/A	
Rush TAT requested on COC	☐Yes ☑ No ☐N/A	
Sufficient Volume	☑Yes ☐ No ☐N/A	
Correct Containers Used	☑Yes ☐ No ☐N/A	
Containers Intact	☑Yes ☐ No ☐N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐Yes ☑ No ☐N/A	No times on containers / See comments
All containers needing acid/base preservation have been checked.	☑Yes ☐ No ☐N/A	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation:	☑Yes ☐ No ☐N/A	Preservative: Lot #/Trace #: Date: Time: Initials:
Exceptions: VOA, Coliform, TOC, O&G, Carbamates		
Headspace in VOA Vials? (>6mm):	☐Yes ☐ No ☑N/A	
Trip Blank Present:	☐Yes ☐ No ☑N/A	

Client Notification/ Resolution:
Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments): Project requests Chlorophyll but containers are not preserved to stay NO2/NO3, TKN, TP

Project Manager Review: Date: