

Laboratory Results

Lee County Environmental Laboratory

60-2 Danley Drive
Fort Myers, FL 33907
239-533-8600



To: Natural Resources Management
1500 Monroe St
Fort Myers FL 33901
RE: Tidal Caloosa

Report Date: 10/1/2018

Below are the results of samples submitted to this laboratory on 9/19/2018

Laboratory ID	AD86894	Collection date and time	9/19/2018 10:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #413		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.58		mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	1.20	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.6	I	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B
Color	110		CU	3.2	12.8	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.93		mg/L	0.1		9/19/2018	10:25 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.021	I	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.007	I	mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2
Nitrate	0.121		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.128		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	0.87		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.067		mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	2.55		SU	0.1		9/19/2018	10:25 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.35		meters	0.1		9/19/2018	10:25 AM	FDEP FT 1700
Silica, dissolved as SiO2	8.4		mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Depth of Water Body	1.8		Meters			9/19/2018	10:25 AM	FS2100
Nitrogen, Kjeldahl, Total	0.89		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B

Laboratory ID	AD86894	Collection date and time	9/19/2018 10:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #413		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Phosphorus, Total	0.087		mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	1.08	I	mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	1.05		NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Laboratory ID	AD86895	Collection date and time	9/19/2018 12:15 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #454		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	1.60	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	0.70	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.5	I	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B
Color	127		CU	3.2	12.8	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.09		mg/L	0.1		9/19/2018	12:15 PM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.024	I	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.012		mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2
Nitrate	0.172		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.184		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	0.90		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.078		mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	0.19		SU	0.1		9/19/2018	12:15 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.25		meters	0.1		9/19/2018	12:15 PM	FDEP FT 1700
Silica, dissolved as SiO2	8.8		mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Depth of Water Body	1.7		Meters			9/19/2018	12:15 PM	FS2100
Nitrogen, Kjeldahl, Total	0.92		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	1.1		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B
Phosphorus, Total	0.093		mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.930		NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Laboratory ID	AD86896	Collection date and time	9/19/2018 11:40 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #442		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	4.93		mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	1.93	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.8	I	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B
Color	115		CU	3.2	12.8	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.23		mg/L	0.1		9/19/2018	11:40 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.007	I	mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2
Nitrate	0.121		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.128		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	0.87		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.066		mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	0.19		SU	0.1		9/19/2018	11:40 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.15		meters	0.1		9/19/2018	11:40 AM	FDEP FT 1700
Silica, dissolved as SiO2	8.6		mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Depth of Water Body	1.7		Meters			9/19/2018	11:40 AM	FS2100
Nitrogen, Kjeldahl, Total	0.87		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	1.00		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B
Phosphorus, Total	0.092		mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	1.08		NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Laboratory ID	AD86897	Collection date and time	9/19/2018 9:40 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #387		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	1.56	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	0.80	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.7	I	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B

Laboratory ID	AD86897	Collection date and time	9/19/2018 9:40 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #387		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	82.3		CU	1.6	6.4	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.11		mg/L	0.1		9/19/2018	9:40 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Enterolert®
E.coli Enumeration	10		MPN/100mL	10		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.027	I	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.007	I	mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2
Nitrate	0.089		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.096		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	0.84		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.060		mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	8.81		SU	0.1		9/19/2018	9:40 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.2		meters	0.1		9/19/2018	9:40 AM	FDEP FT 1700
Silica, dissolved as SiO2	6.1		mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Depth of Water Body	1.4		Meters			9/19/2018	9:40 AM	FS2100
Nitrogen, Kjeldahl, Total	0.87		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	0.97		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	14		mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B
Phosphorus, Total	0.081		mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	2.60		mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.450	I	NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Laboratory ID	AD86898	Collection date and time	9/19/2018 10:55 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #428		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	4.53		mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	1.53	I	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.7	I	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B
Color	118		CU	3.2	12.8	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.82		mg/L	0.1		9/19/2018	10:55 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Enterolert®

Laboratory ID	AD86898	Collection date and time	9/19/2018 10:55 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #428		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
E.coli Enumeration	10	U	MPN/100mL	10		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.006	I	mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2
Nitrate	0.151		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.157		mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	1.0		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.067		mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	0.26		SU	0.1		9/19/2018	10:55 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.1		meters	0.1		9/19/2018	10:55 AM	FDEP FT 1700
Silica, dissolved as SiO2	9.1		mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Depth of Water Body	2.65		Meters			9/19/2018	10:55 AM	FS2100
Nitrogen, Kjeldahl, Total	1.0		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	1.2		mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B
Phosphorus, Total	0.092		mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	1.20	I	mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	1.28		NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Laboratory ID	AD86899	Collection date and time	9/19/2018 12:30 PM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/DUGAN/COFONE
Sample Description	EB Site #454		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	0.50	U	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2.0	9/20/2018	2:17 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U	mg/L	0.3	1.2	9/20/2018	8:20 AM	SM20 5210 B
Color	1.6	U	CU	1.6	6.4	9/20/2018	10:14 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.34		mg/L	0.1		9/19/2018	12:30 PM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		9/19/2018	2:43 PM	Enterolert®
E.coli Enumeration	2	U	MPN/100mL	2		9/19/2018	2:43 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	9/20/2018	2:00 PM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	9/20/2018	1:08 PM	EPA 353.2

Laboratory ID	AD86899	Collection date and time	9/19/2018 12:30 PM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/DUGAN/COFONE
Sample Description	EB Site #454		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Nitrate	0.010	U	mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	9/20/2018	1:08 PM	EPA 353.2
Nitrogen, Organic	0.050	U	mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	9/20/2018	9:41 AM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		9/19/2018	12:30 PM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	9/20/2018	10:22 AM	SM4500 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	9/26/2018	8:08 AM	EPA 351.2
Nitrogen, Total	0.050	U	mg/L as N	0.05	0.2	9/26/2018	8:08 AM	TKN + NOX
Total Organic Carbon	1.9	I	mg/L	1	4	9/24/2018	2:31 PM	SM21 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	9/26/2018	8:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	9/20/2018	8:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	9/20/2018	6:47 AM	EPA 180.1

Qualifiers:

I The value is less than, or equal to, the laboratory's practical quantitation limit (PQL) and greater than the minimum detection limit (MDL).

U Indicates that the compound was analyzed for but not detected.

Unless noted otherwise, these test results meet all the requirements of the 2003 NELAC Standards.

The results provided herein relate only to the samples cited as they were received by the laboratory. All questions regarding this report should be directed to Rick Armstrong, Laboratory Manager.



Rick Armstrong
Lab Manager
Lee County Environmental Lab

LCEL

Lee County Environmental Laboratory
60-2 Danley Dr Ft Myers, FL 33907
Phone: (239) 533-8600

Analysis Request & Chain of Custody Record

Lab Certification: E45049
LCEL_F_COC_20150828R1

LCEL does not accept any samples used for evidentiary purposes

Report/Result Information				Billing/Invoice Information				Page 1 of 1											
Name: FDEP - South ATTN: Kirby Wolfe Address: 2295 Victoria Ave, Suite 364 PO Box 2549 Ft Myers FL 33901 Phone: (239) 344-5719 Sample Collector(s) (please print): MaryAnn Dugan / Nicole Reistad				Name: DNRM RE: CCHMN-Tidal Caloosa Address: 1500 Monroe St Ft Myers, FL 33901 Phone: (239) 533-8109 Sample Collector Signature:				Matrix Codes: DW-Drinking water GW- Ground water WW-Waste water SW-Surface water WWS-Wastewater Sludge S-Sediment O-Other				Preservative Codes: NP-No Preservative N-Nitric Acid S-Sulfuric Acid H-Hydrochloric Acid SH-Sodium Hydroxide ST-Sodium Thiosulfate O-Other							
Relinquished By: (signature) <i>[Signature]</i>				Relinquished By: (signature) <i>[Signature]</i>				Analyses Required											
Relinquished By: (signature) <i>[Signature]</i>				Relinquished By: (signature) <i>[Signature]</i>				Analyses Required											
Relinquished By: (signature) <i>[Signature]</i>				Relinquished By: (signature) <i>[Signature]</i>				Analyses Required											
Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 6.1 °C								Preservatives (see codes)											
Collection Date Time				Sample Description & Location				Matrix (see codes)				# of Sample Containers Submitted				Lab ID #			
09/19/18 1025				CRNEP_RS #413				SWE				1 1 1 1 2 1				AD86894			
09/19/18 1215				CRNEP_RS #454				SWE				1 1 1 1 2 1				AD86895			
09/19/18 1140				CRNEP_RS #442				SWE				1 1 1 1 2 1				AD86896			
09/19/18 0940				CRNEP_RS #387				SWE				1 1 1 1 2 1				AD86897			
09/19/18 1055				CRNEP_RS #428				SWE				1 1 1 1 2 1				AD86898			
09/19/18 1230				CRNEP_EQ #454				SWE				1 1 1 1 2 1				AD86899			

**SAMPLES SHOULD BE IN WET ICE & LESS THAN 6° C (42.8°F)
OR THEY MAY BE QUALIFIED***

*Qualified = the data may not be accurate and regulatory agencies may not accept qualified data.