

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: 11/1/2018

Below are the results of samples submitted to this laboratory on 10/17/2018

Laboratory ID	AD88735	Collection date and time	10/17/2018 11:35 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #449		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	5.94		mg/M3	0.5	2	10/18/2018	2:40 PM	SM21 10200 H
Pheophytin	2.26		mg/M3	0.5	2	10/18/2018	2:40 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.7	I	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B
Color	103		CU	3.2	12.8	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.23		mg/L	0.1		10/17/2018	11:35 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		10/17/2018	3:08 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.029	I	mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.007	I	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2
Nitrate	0.261		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.268		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.73		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.080		mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	3.67		SU	0.1		10/17/2018	11:35 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.15		meters	0.1		10/17/2018	11:35 AM	FDEP FT 1700
Silica, dissolved as SiO2	8.6		mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Depth of Water Body	2.1		Meters			10/17/2018	11:35 AM	FS2100
Nitrogen, Kjeldahl, Total	0.76		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	16		mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B

Laboratory ID	AD88735	Collection date and time	10/17/2018 11:35 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #449		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Phosphorus, Total	0.11		mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	1.30	I	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.980		NTU	0.2	0.8	10/18/2018	8:02 AM	EPA 180.1

Laboratory ID	AD88736	Collection date and time	10/17/2018 10:00 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	8.22		mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Pheophytin	2.67		mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.6	I	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B
Color	91.5		CU	3.2	12.8	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.39		mg/L	0.1		10/17/2018	10:00 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		10/17/2018	3:08 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.009	I	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2
Nitrate	0.214		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.223		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.69		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.075		mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	7.14		SU	0.1		10/17/2018	10:00 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.4		meters	0.1		10/17/2018	10:00 AM	FDEP FT 1700
Silica, dissolved as SiO2	6.9		mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Depth of Water Body	2.4		Meters			10/17/2018	10:00 AM	FS2100
Nitrogen, Kjeldahl, Total	0.69		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	0.91		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	15		mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B
Phosphorus, Total	0.11		mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.410	I	NTU	0.2	0.8	10/18/2018	8:02 AM	EPA 180.1

Laboratory ID	AD88737	Collection date and time	10/17/2018 12:00 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	1.55	I	mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Pheophytin	0.56	I	mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.4	I	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B
Color	107		CU	3.2	12.8	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.07		mg/L	0.1		10/17/2018	12:00 PM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		10/17/2018	3:08 PM	Enterolert®
E.coli Enumeration	20		MPN/100mL	10		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.014	I	mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.006	I	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2
Nitrate	0.266		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.272		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.70		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.075		mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	1.23		SU	0.1		10/17/2018	12:00 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.25		meters	0.1		10/17/2018	12:00 PM	FDEP FT 1700
Silica, dissolved as SiO2	9.6		mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Depth of Water Body	2.2		Meters			10/17/2018	12:00 PM	FS2100
Nitrogen, Kjeldahl, Total	0.71		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	0.98		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B
Phosphorus, Total	0.11		mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.920		NTU	0.2	0.8	10/18/2018	8:02 AM	EPA 180.1

Laboratory ID	AD88738	Collection date and time	10/17/2018 10:30 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #423		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	1.87	I	mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Pheophytin	1.61	I	mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.4	I	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B

Laboratory ID	AD88738	Collection date and time	10/17/2018 10:30 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #423		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	108		CU	3.2	12.8	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.55		mg/L	0.1		10/17/2018	10:30 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		10/17/2018	3:08 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.070		mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.008	I	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2
Nitrate	0.258		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.266		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.81		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.104		mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	3.18		SU	0.1		10/17/2018	10:30 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.3		meters	0.1		10/17/2018	10:30 AM	FDEP FT 1700
Silica, dissolved as SiO2	8.4		mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Depth of Water Body	1.6		Meters			10/17/2018	10:30 AM	FS2100
Nitrogen, Kjeldahl, Total	0.88		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	1.1		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	17		mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B
Phosphorus, Total	0.14		mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	0.850	I	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.310	I	NTU	0.2	0.8	10/18/2018	8:02 AM	EPA 180.1

Laboratory ID	AD88739	Collection date and time	10/17/2018 11:10 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #443		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	5.29		mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Pheophytin	2.17		mg/M3	0.5	2	10/23/2018	7:41 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.4	I	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B
Color	108		CU	3.2	12.8	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.21		mg/L	0.1		10/17/2018	11:10 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		10/17/2018	3:08 PM	Enterolert®

Laboratory ID AD88739
 Location Code CRNEP_RS
 Sample Description Grid #443

Collection date and time 10/17/2018 11:10 AM
 Sample Collector REISTADT/DUGAN

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
E.coli Enumeration	10	U	MPN/100mL	10		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.008	I	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2
Nitrate	0.254		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.262		mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.79		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.079		mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	3.97		SU	0.1		10/17/2018	11:10 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.15		meters	0.1		10/17/2018	11:10 AM	FDEP FT 1700
Silica, dissolved as SiO2	8.5		mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Depth of Water Body	2.0		Meters			10/17/2018	11:10 AM	FS2100
Nitrogen, Kjeldahl, Total	0.79		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	1.1		mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	16		mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B
Phosphorus, Total	0.12		mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	1.32	I	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.880		NTU	0.2	0.8	10/18/2018	8:02 AM	EPA 180.1

Laboratory ID AD88740
 Location Code CRNEP_EQ
 Sample Description EB Site #454

Collection date and time 10/17/2018 12:15 PM
 Sample Collector REISTADT/DUGAN

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	10/18/2018	2:40 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2	10/18/2018	2:40 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U	mg/L	0.3	1.2	10/19/2018	9:10 AM	SM20 5210 B
Color	1.6	U	CU	1.6	6.4	10/18/2018	8:30 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.64		mg/L	0.1		10/17/2018	12:15 PM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		10/17/2018	3:08 PM	Enterolert®
E.coli Enumeration	2	U	MPN/100mL	2		10/17/2018	3:21 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	10/18/2018	11:04 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	10/18/2018	10:43 AM	EPA 353.2

Laboratory ID AD88740
Location Code CRNEP_EQ
Sample Description EB Site #454

Collection date and time 10/17/2018 12:15 PM
Sample Collector REISTADT/DUGAN

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	10/18/2018	10:43 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	10/18/2018	10:43 AM	EPA 353.2
Nitrogen, Organic	0.050	U	mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	10/18/2018	9:01 AM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		10/17/2018	12:15 PM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	10/18/2018	7:56 AM	SM4500 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	10/26/2018	10:00 AM	EPA 351.2
Nitrogen, Total	0.050	U	mg/L as N	0.05	0.2	10/26/2018	10:00 AM	TKN + NOX
Total Organic Carbon	1.1	I	mg/L	1	4	10/18/2018	2:47 PM	SM21 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	10/26/2018	10:10 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	10/18/2018	7:50 AM	SM21 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	10/18/2018	8:02 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				Name: DNRM				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			
ATTN: Kirby Wolfe				RE: CCHMN-Tidal Caloosa											
Address: 2295 Victoria Ave, Suite 364 PO Box 2549 Ft Myers FL 33901				Address: 1500 Monroe St Ft Myers, FL 33901											
Phone: (239) 344-5719				Phone: (239) 533-8109											
Sample Collector(s) (please print): MaryAnn Dugan / Nicole Reistad				Sample Collector Signature:				Analyses Required							
Relinquished By: (signature)		Date		Time		Received By: (signature)									
		10/17/18		1458				\$Chloroa, _prep O-PO4, Color, NOX TOC NH3, TKN, TN, T-PO4, NO3, ONIT Turb, NO2, TSS, Silica, Bod, Bodi Mug2QT, Enteroc	Preservatives (see codes) NP NPF S S NP ST						
Relinquished By: (signature)		Date		Time		Received By: (signature)									
		10/17/18													
Relinquished By: (signature)		Date		Time		Received By: (signature)									
Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 4.0°C															
Collection Date Time		Sample Description & Location		Matrix (see codes)		# of Sample Containers Submitted				Lab ID #					
10/17/18	1135	CRNEP_RS #449		SWE		1	1	1	1	2	1	AD88735			
10/17/18	1000	CRNEP_RS #413		SWE		1	1	1	1	2	1	AD88736			
10/17/18	1200	CRNEP_RS #454		SWE		1	1	1	1	2	1	AD88737			
10/17/18	1030	CRNEP_RS #423		SWE		1	1	1	1	2	1	AD88738			
10/17/18	1110	CRNEP_RS #443		SWE		1	1	1	1	2	1	AD88739			
10/17/18	1215	CRNEP_EQ # BLANK		SWE		1	1	1	1	2	1	AD88740			

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

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