

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: 4/25/2019

Below are the results of samples submitted to this laboratory on 4/10/2019

Laboratory ID	AE06806	Collection date and time	4/10/2019 9:55 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #396		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.37		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	0.60	I	mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.5	I J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B
For this BOD data set seed correction is at 1.6 mg/L, not within 0.6-1.0 mg/L range.								
Color	24.9		CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.60		mg/L	0.1		4/10/2019	9:55 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.023	I	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.003	I	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.62		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.045		mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	17.23		SU	0.1		4/10/2019	9:55 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.5		meters	0.1		4/10/2019	9:55 AM	FDEP FT 1700
Silica, dissolved as SiO2	3.1		mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Depth of Water Body	1.5		Meters			4/10/2019	9:55 AM	FS2100
Nitrogen, Kjeldahl, Total	0.64		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	0.64		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX



Laboratory ID	AE06806	Collection date and time	4/10/2019 9:55 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #396		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Total Organic Carbon	9.0		mg/L	1	4	4/12/2019	3:26 PM	SM 5310 B
Phosphorus, Total	0.063		mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	3.35		mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	4/11/2019	8:32 AM	EPA 180.1

Laboratory ID	AE06807	Collection date and time	4/10/2019 11:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #423		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.33		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	3.01		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.5	I J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B
Color	35.4		CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.64		mg/L	0.1		4/10/2019	11:25 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.044	I	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.004	I	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.039	I	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.043		mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.75		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.071		mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	9.44		SU	0.1		4/10/2019	11:25 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.25		meters	0.1		4/10/2019	11:25 AM	FDEP FT 1700
Silica, dissolved as SiO2	5.8		mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Depth of Water Body	2.0		Meters			4/10/2019	11:25 AM	FS2100
Nitrogen, Kjeldahl, Total	0.79		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	0.83		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX
Total Organic Carbon	12		mg/L	1	4	4/12/2019	3:26 PM	SM 5310 B
Phosphorus, Total	0.10		mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	5.55		mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D

Laboratory ID	AE06807	Collection date and time	4/10/2019 11:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #423		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Turbidity (Nephelometric)	3.12		NTU	0.2	0.8	4/11/2019	8:32 AM	EPA 180.1

Laboratory ID	AE06809	Collection date and time	4/10/2019 10:50 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #404		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.99		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	1.11	I	mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.5	I J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B
Color	27.6		CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	8.78		mg/L	0.1		4/10/2019	10:50 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Enterolert®
E.coli Enumeration	20		MPN/100mL	10		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.021	I	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.003	I	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.011	I	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.62		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.047		mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	15.66		SU	0.1		4/10/2019	10:50 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.9		meters	0.1		4/10/2019	10:50 AM	FDEP FT 1700
Silica, dissolved as SiO2	3.8		mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Depth of Water Body	0.9		Meters			4/10/2019	10:50 AM	FS2100
Nitrogen, Kjeldahl, Total	0.64		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	0.65		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX
Total Organic Carbon	9.7		mg/L	1	4	4/12/2019	3:26 PM	SM 5310 B
Phosphorus, Total	0.070		mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	3.15		mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	4/11/2019	8:32 AM	EPA 180.1

Laboratory ID	AE06810	Collection date and time	4/10/2019 10:25 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #403		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	2.06		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	1.14	I	mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B
Color	24.5		CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.46		mg/L	0.1		4/10/2019	10:25 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.023	I	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.003	I	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.010	I	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.62		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.043		mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	17.15		SU	0.1		4/10/2019	10:25 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	2.2		meters	0.1		4/10/2019	10:25 AM	FDEP FT 1700
Silica, dissolved as SiO2	3.3		mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Depth of Water Body	2.2		Meters			4/10/2019	10:25 AM	FS2100
Nitrogen, Kjeldahl, Total	0.64		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	0.65		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX
Total Organic Carbon	9.0		mg/L	1	4	4/12/2019	3:26 PM	SM 5310 B
Phosphorus, Total	0.064		mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	1.40	I	mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	4/11/2019	8:32 AM	EPA 180.1

Laboratory ID	AE06811	Collection date and time	4/10/2019 12:15 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #453		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	7.36		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	6.95		mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	I J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B

Laboratory ID	AE06811	Collection date and time	4/10/2019 12:15 PM
Location Code	CRNEP_RS	Sample Collector	REISTADT/SNOREK
Sample Description	Grid #453		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	45.0		CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.11		mg/L	0.1		4/10/2019	12:15 PM	FDEP FT1500
Enterococci	10		MPN/100mL	10		4/10/2019	3:32 PM	Enterolert®
E.coli Enumeration	20		MPN/100mL	10		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.003	I	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.037	I	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.040		mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.97		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.075		mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	1.89		SU	0.1		4/10/2019	12:15 PM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.45		meters	0.1		4/10/2019	12:15 PM	FDEP FT 1700
Silica, dissolved as SiO2	6.0		mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Depth of Water Body	1.4		Meters			4/10/2019	12:15 PM	FS2100
Nitrogen, Kjeldahl, Total	0.97		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX
Total Organic Carbon	14		mg/L	1	4	4/17/2019	9:23 AM	SM 5310 B
Phosphorus, Total	0.15		mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	12.7		mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D
Turbidity (Nephelometric)	13.0		NTU	0.2	0.8	4/11/2019	8:32 AM	EPA 180.1

Laboratory ID	AE06812	Collection date and time	4/10/2019 12:35 PM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/SNOREK
Sample Description	EB Site #		

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	4/17/2019	3:07 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2.0	4/17/2019	3:07 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	4/11/2019	11:12 AM	SM 5210 B
Color	1.6	U	CU	1.6	6.4	4/11/2019	2:18 PM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.71		mg/L	0.1		4/10/2019	12:35 PM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		4/10/2019	3:32 PM	Enterolert®

Laboratory ID AE06812
 Location Code CRNEP_EQ
 Sample Description EB Site #

Collection date and time 4/10/2019 12:35 PM
 Sample Collector REISTADT/SNOREK

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
E.coli Enumeration	2	U	MPN/100mL	2		4/10/2019	3:32 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	4/11/2019	9:51 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	4/11/2019	11:21 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	4/11/2019	11:21 AM	EPA 353.2
Nitrogen, Organic	0.0500	U	mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	4/11/2019	1:58 PM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		4/10/2019	12:35 PM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	4/11/2019	1:58 PM	SM4500-SiO2 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	4/17/2019	8:38 AM	EPA 351.2
Nitrogen, Total	0.0500	U	mg/L as N	0.05	0.2	4/17/2019	8:38 AM	TKN + NOX
Total Organic Carbon	1.000	U	mg/L	1	4	4/12/2019	3:26 PM	SM 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	4/17/2019	8:41 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	4/11/2019	6:30 AM	SM 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	4/11/2019	8:32 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).
 I J3 The value is < or = to the PQL and > the MDL. The reported value failed to meet the established quality control criteria for either precision or accuracy.
 U Indicates that the compound was analyzed for but not detected.
 U J3 Indicates that the compound was analyzed for but not detected. Value failed to meet QC criteria for precision or accuracy.

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

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Name: FDEP - South	Name: DNR	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): Nicole Reistad/Maryann Dugan <i>Gary Shorek</i>		Sample Collector Signature: <i>[Signature]</i>		Analyses Required							
Relinquished By: (signature)	Date	Time	Received By: (signature)	\$Chloro, _prep	O-PO4, Color, NOX	TOC	NH3, TKN, TN, T-PO4, NO3, ONIT	Turb, NO2, TSS, Silica, Bod, Bodi	Mug2QT, Entero		
<i>[Signature]</i>	04/10/19	1453	<i>[Signature]</i>								
Relinquished By: (signature)	Date	Time	Received By: (signature)								
Relinquished By: (signature)	Date	Time	Received By: (signature)								

Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 4.7°C				NP	NPF	S	S	NP	ST	
Collection Date	Time	Sample Description & Location	Matrix (see codes)	# of Sample Containers Submitted						Lab ID #
04/10/19	0955	CRNEP_RS #396	SWE	1	1	1	1	2	1	AE06806
04/10/19	1125	CRNEP_RS #423	SWE	1	1	1	1	2	1	AE06807
		CRNEP_RSBOT #423 Bottom NOT TAKEN	SWE	1	1	1	1	2	1	AE06808
04/10/19	1050	CRNEP_RS #404	SWE	1	1	1	1	2	1	AE06809
04/10/19	1025	CRNEP_RS #403	SWE	1	1	1	1	2	1	AE06810
04/10/19	1215	CRNEP_RS #453	SWE	1	1	1	1	2	1	AE06811
04/10/19	1235	CRNEP_EQ # BLANK	SWE	1	1	1	1	2	1	AE06812

**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.