

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: 5/31/2018

Below are the results of samples submitted to this laboratory on 5/14/2018

Laboratory ID	AD75014	Collection date and time	5/14/2018 10:20 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #412		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	3.17		mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Pheophytin	0.80	I	mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.4	I J3	mg/L	0.3	1.2	5/15/2018	9:50 AM	SM20 5210 B
For this BOD data set AD75014-AD75134 seed correction is at 1.9 mg/L, not within 0.6-1.0 mg/L range.								
Color	33.0		CU	1.6	6.4	5/15/2018	6:48 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.90		mg/L	0.1		5/14/2018	10:20 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Colilert-18®
Ammonia	0.023	I	mg/L as N	0.014	0.056	5/17/2018	10:57 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/15/2018	8:37 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrogen, Organic	0.85		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN - NH3
Phosphorus, Ortho	0.081		mg/L as P	0.004	0.016	5/15/2018	9:48 AM	EPA 365.1
Salinity by meter by Client	16.7		SU	0.1		5/14/2018	10:20 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.3		meters	0.1		5/14/2018	10:20 AM	FDEP FT 1700
Silica, dissolved as SiO2	2.2		mg/L as SiO2	0.1	0.4	5/15/2018	11:41 AM	SM4500 C
Depth of Water Body	1.3		Meters			5/14/2018	10:20 AM	FS2100
Nitrogen, Kjeldahl, Total	0.87		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	EPA 351.2
Nitrogen, Total	0.87		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN + NOX

Laboratory ID	AD75014	Collection date and time	5/14/2018 10:20 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #412		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Total Organic Carbon	10		mg/L	1	4	5/24/2018	3:17 PM	SM21 5310 B
Phosphorus, Total	0.10		mg/L as P	0.006	0.024	5/16/2018	8:31 AM	EPA 365.1
Total Suspended Solids	2.48		mg/L	0.6	2.4	5/15/2018	9:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.560	I	NTU	0.2	0.8	5/15/2018	8:35 AM	EPA 180.1

Laboratory ID	AD75017	Collection date and time	5/14/2018 10:45 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	2.55		mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	5/15/2018	9:50 AM	SM20 5210 B
Color	31.4		CU	1.6	6.4	5/15/2018	6:48 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	7.00		mg/L	0.1		5/14/2018	10:45 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Colilert-18®
Ammonia	0.023	I	mg/L as N	0.014	0.056	5/17/2018	10:57 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/15/2018	8:37 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrogen, Organic	0.80		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN - NH3
Phosphorus, Ortho	0.078		mg/L as P	0.004	0.016	5/15/2018	9:48 AM	EPA 365.1
Salinity by meter by Client	16.98		SU	0.1		5/14/2018	10:45 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	2.0		meters	0.1		5/14/2018	10:45 AM	FDEP FT 1700
Silica, dissolved as SiO2	2.0		mg/L as SiO2	0.1	0.4	5/15/2018	11:41 AM	SM4500 C
Depth of Water Body	2.0		Meters			5/14/2018	10:45 AM	FS2100
Nitrogen, Kjeldahl, Total	0.82		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	EPA 351.2
Nitrogen, Total	0.82		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN + NOX
Total Organic Carbon	10		mg/L	1	4	5/24/2018	3:17 PM	SM21 5310 B
Phosphorus, Total	0.10		mg/L as P	0.006	0.024	5/16/2018	8:31 AM	EPA 365.1
Total Suspended Solids	2.70		mg/L	0.6	2.4	5/15/2018	9:00 AM	SM21 2540 D

Laboratory ID	AD75017	Collection date and time	5/14/2018 10:45 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
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	5/15/2018	8:35 AM	EPA 180.1

Laboratory ID	AD75018	Collection date and time	5/14/2018 11:15 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	3.15		mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Pheophytin	3.45		mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	5/15/2018	9:50 AM	SM20 5210 B
Color	37.5		CU	1.6	6.4	5/15/2018	6:48 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	6.77		mg/L	0.1		5/14/2018	11:15 AM	FDEP FT1500
Enterococci	10		MPN/100mL	10		5/14/2018	2:32 PM	Enterolert®
E.coli Enumeration	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Colilert-18®
Ammonia	0.056		mg/L as N	0.014	0.056	5/17/2018	10:57 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/15/2018	8:37 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrogen, Organic	1.0		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN - NH3
Phosphorus, Ortho	0.093		mg/L as P	0.004	0.016	5/15/2018	9:48 AM	EPA 365.1
Salinity by meter by Client	13.87		SU	0.1		5/14/2018	11:15 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	1.0		meters	0.1		5/14/2018	11:15 AM	FDEP FT 1700
Silica, dissolved as SiO2	2.7		mg/L as SiO2	0.1	0.4	5/15/2018	11:41 AM	SM4500 C
Depth of Water Body	1.0		Meters			5/14/2018	11:15 AM	FS2100
Nitrogen, Kjeldahl, Total	1.1		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	EPA 351.2
Nitrogen, Total	1.1		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN + NOX
Phosphorus, Total	0.15		mg/L as P	0.006	0.024	5/16/2018	8:31 AM	EPA 365.1
Total Suspended Solids	9.05		mg/L	0.6	2.4	5/15/2018	9:00 AM	SM21 2540 D
Turbidity (Nephelometric)	2.35		NTU	0.2	0.8	5/15/2018	8:35 AM	EPA 180.1

Laboratory ID	AD75019	Collection date and time	5/14/2018 9:50 AM
Location Code	CRNEP_RS	Sample Collector	REISTADT/DUGAN
Sample Description	Grid #396		

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Chlorophyll a - corrected for Pheophytin	1.54	I	mg/M3	0.5	2.0	5/29/2018	9:10 AM	SM21 10200 H
Pheophytin	1.94	I	mg/M3	0.5	2.0	5/29/2018	9:10 AM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	5/15/2018	9:50 AM	SM20 5210 B
Color	26.9		CU	1.6	6.4	5/15/2018	6:48 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	5.86		mg/L	0.1		5/14/2018	9:50 AM	FDEP FT1500
Enterococci	10	U	MPN/100mL	10		5/14/2018	2:32 PM	Enterolert®
E.coli Enumeration	10		MPN/100mL	10		5/14/2018	2:32 PM	Colilert-18®
Ammonia	0.050	I	mg/L as N	0.014	0.056	5/17/2018	10:57 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/15/2018	8:37 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrogen, Organic	0.95		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN - NH3
Phosphorus, Ortho	0.073		mg/L as P	0.004	0.016	5/15/2018	9:48 AM	EPA 365.1
Salinity by meter by Client	20.61		SU	0.1		5/14/2018	9:50 AM	FDEP FT 1300
Water Clarity Secchi Disk, by Client	0.8	S	meters	0.1		5/14/2018	9:50 AM	FDEP FT 1700
Silica, dissolved as SiO2	1.8		mg/L as SiO2	0.1	0.4	5/15/2018	11:41 AM	SM4500 C
Depth of Water Body	0.8		Meters			5/14/2018	9:50 AM	FS2100
Nitrogen, Kjeldahl, Total	1.0		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	EPA 351.2
Nitrogen, Total	1.0		mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN + NOX
Total Organic Carbon	9.0		mg/L	1	4	5/24/2018	3:17 PM	SM21 5310 B
Phosphorus, Total	0.10		mg/L as P	0.006	0.024	5/16/2018	8:31 AM	EPA 365.1
Total Suspended Solids	5.63		mg/L	0.6	2.4	5/15/2018	9:00 AM	SM21 2540 D
Turbidity (Nephelometric)	1.40		NTU	0.2	0.8	5/15/2018	8:35 AM	EPA 180.1

Laboratory ID	AD75020	Collection date and time	5/14/2018 11:55 AM
Location Code	CRNEP_EQ	Sample Collector	REISTADT/DUGAN
Sample Description	EB Site #423		

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	5/24/2018	1:49 PM	SM21 10200 H
Pheophytin	0.50	U	mg/M3	0.5	2.0	5/24/2018	1:49 PM	SM21 10200 H
Biochemical Oxygen Demand 5 day	0.3	U J3	mg/L	0.3	1.2	5/15/2018	9:50 AM	SM20 5210 B

Laboratory ID AD75020
 Location Code CRNEP_EQ
 Sample Description EB Site #423

Collection date and time 5/14/2018 11:55 AM
 Sample Collector REISTADT/DUGAN

Analyte Name	Result	Qualifier	Units	MDL	PQL	Analysis Date	Analysis Time	Analysis Method
Color	1.6	U	CU	1.6	6.4	5/15/2018	6:48 AM	SM21 2120 C
Oxygen, Dissolved, Electrode, by Client	8.04		mg/L	0.1		5/14/2018	11:55 AM	FDEP FT1500
Enterococci	2	U	MPN/100mL	2		5/14/2018	2:32 PM	Enterolert®
E.coli Enumeration	2	U	MPN/100mL	2		5/14/2018	2:32 PM	Colilert-18®
Ammonia	0.014	U	mg/L as N	0.014	0.056	5/17/2018	10:57 AM	EPA 350.1
Nitrite	0.003	U	mg/L as N	0.003	0.012	5/15/2018	8:37 AM	EPA 353.2
Nitrate	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrate + Nitrite	0.010	U	mg/L as N	0.01	0.04	5/15/2018	8:37 AM	EPA 353.2
Nitrogen, Organic	0.050	U	mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN - NH3
Phosphorus, Ortho	0.004	U	mg/L as P	0.004	0.016	5/15/2018	9:48 AM	EPA 365.1
Salinity by meter by Client	0.1	U	SU	0.1		5/14/2018	11:55 AM	FDEP FT 1300
Silica, dissolved as SiO2	0.1	U	mg/L as SiO2	0.1	0.4	5/15/2018	11:41 AM	SM4500 C
Nitrogen, Kjeldahl, Total	0.05	U	mg/L as N	0.05	0.2	5/16/2018	8:29 AM	EPA 351.2
Nitrogen, Total	0.050	U	mg/L as N	0.05	0.2	5/16/2018	8:29 AM	TKN + NOX
Total Organic Carbon	1.000	U	mg/L	1	4	5/24/2018	3:17 PM	SM21 5310 B
Phosphorus, Total	0.006	U	mg/L as P	0.006	0.024	5/16/2018	8:31 AM	EPA 365.1
Total Suspended Solids	0.6	U	mg/L	0.6	2.4	5/15/2018	9:00 AM	SM21 2540 D
Turbidity (Nephelometric)	0.20	U	NTU	0.2	0.8	5/15/2018	8:35 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.
 S Secchi disk visible to bottom of waterbody. Value reported is the depth of the waterbody at the location of Secchi disk measurement.
 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

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Chain of Custody Record

LCEL does not accept any samples used for evidentiary purposes

Lab Certification: E45049

LCEL F COC 20150828R1

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Report/Result Information

Billing/Invoice Information

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) <i>Nicole Reistad</i>	Date 05/14/18	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		
Relinquished By: (signature) <i>MaryAnn Dugan</i>	Date 05/14/18	Time 13:53	Received By: (signature) <i>Rich Austin</i>								
Relinquished By: (signature)	Date	Time	Received By: (signature)								

Sample(s) on ice ☒ Yes or ☐ No? Temperature °C: 4.8

Collection		Sample Description & Location	Matrix (see codes)	Preservatives (see codes)						# of Sample Containers Submitted	Lab ID #
Date	Time			NP	NPF	S	S	NP	ST		
05/14/18	1020	CRNEP_RS #412	SWE	1	1	1	1	2	1	AD75014	
05/14/18		CRNEP_RSBOT #412 Bottom NOT SAMPLED	SWE	1	1	1	1	2	1	AD75015	
05/14/18		CRNEP_RS #443 NOT SAMPLED	SWE	1	1	1	1	2	1	AD75016	
05/14/18	1045	CRNEP_RS #413	SWE	1	1	1	1	2	1	AD75017	
05/14/18	1115	CRNEP_RS #423 * TOC not collected	SWE	1	1	1	1	2	1	AD75018	
05/14/18	0950	CRNEP_RS #396	SWE	1	1	1	1	2	1	AD75019	
05/14/18	0950	CRNEP_EQ #	SWE	1	1	1	1	2	1	AD75020	
	1155										

**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.