



PINELLAS COUNTY UTILITIES LABORATORY
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CERTIFICATE OF ANALYSIS

Client: Pinellas County - Environmental Management
Division
22211 US Hwy 19 N
Clearwater, FL 33756

Analyzed By: Pinellas County Utilities Laboratory
1620 Ridge Road Bldg B, Largo, FL 33778
Ph: 727-582-2302

State of Florida Certification: E54357

Workorder Number: 1900377

EPA Lab#: FL00123

Profile: Environmental Mgmt - Ambient

Line Item: EMD - Land Run

SAMPLE SITE	SAMPLE NO.	COLLECTED DATE/TIME	RECEIVED DATE/TIME
24-02 19-01	190037701	02/20/2019 08:52	02/20/2019 14:05
22-01 19-01	190037702	02/20/2019 09:39	02/20/2019 14:05
22-12 19-01	190037703	02/20/2019 10:26	02/20/2019 14:05
22-16 19-01	190037704	02/20/2019 10:58	02/20/2019 14:05
23-08 19-01	190037705	02/20/2019 12:04	02/20/2019 14:05
LR6-FB 19-01	190037706	02/20/2019 12:50	02/20/2019 14:05
29-11 19-01	190037707	02/20/2019 12:51	02/20/2019 14:05

THIS REPORT MEETS TNI STANDARDS

All analytical data contained in this report were obtained using the specified methods and were verified by our laboratory quality system. All methods referenced in this report meet TNI requirements unless otherwise indicated by analytical data codes and/or remarks. Analytical results listed within this report pertain only to the specific samples listed. No other inferences can be made. All measurements are on a wet weight basis unless otherwise indicated by the units of measure. Uncertainty of Measurement for each analyte and the associated Quality Control data for these sample results will be provided upon request.

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CERTIFICATION STATEMENT

An asterisk (*) appearing next to an analyte indicates certification is not currently held for that test/analyte or that the certified test method has been sufficiently modified to accommodate the customer requirements that it no longer qualifies as certified.

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Pinellas County Utilities Laboratory
Contact Person: Terri Grimes
727-582-2322

Terri Grimes

03/06/2019

Terri Grimes
Laboratory Project Coordinator/QA Manager
tgrimes@pinellascounty.org

Date



ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037701**
Sample ID: **24-02 19-01**

Date Received: 2/20/2019 14:05
Date Collected: 2/20/2019 08:52
Matrix: Surface Water
Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	2.8 NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D								
Total Suspended Solids	6 mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	2.4 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	3.1 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	0.6 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	1 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology								
Analytical Method: ASTM D6503-99								
Enterococci	185 MPN/100mL	10	10		2/20/2019 14:38	JDH		MIC/2000
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	0.61 mg/L	1	0.10	0.40	2/26/2019 08:54	AMC		NUTR/2044
Analytical Method: EPA 365.1								
Total Phosphorus	0.13 mg/L	1	0.01	0.04	2/26/2019 10:36	AMC		NUTR/2047
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.09 mg/L	1	0.01	0.04	2/21/2019 12:44	ISP		NUTR/2040
Analytical Method: SM 4500NH3H								
Ammonia	0.08 mg/L	1	0.01	0.04	2/21/2019 11:51	AJH		NUTR/2038
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.04 mg/L	1	0.01	0.04	2/21/2019 11:51	AJH		NUTR/2037

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037702**
Sample ID: **22-01 19-01**

Date Received: 2/20/2019 14:05 Matrix: Surface Water
Date Collected: 2/20/2019 09:39 Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	3.6 NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D								
Total Suspended Solids	1 mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
I - Final dried residue < 2.5 mg as req'd by method								
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	0.5 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology								
Analytical Method: ASTM D6503-99								
Enterococci	833 MPN/100mL	10	10		2/20/2019 14:38	JDH		MIC/2000
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	0.73 mg/L	1	0.10	0.40	2/26/2019 08:55	AMC		NUTR/2044
Analytical Method: EPA 365.1								
Total Phosphorus	0.11 mg/L	1	0.01	0.04	2/27/2019 14:45	AMC		NUTR/2061
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.05 mg/L	1	0.01	0.04	2/21/2019 12:45	ISP		NUTR/2040
Analytical Method: SM 4500NH3H								
Ammonia	0.02 I mg/L	1	0.01	0.04	2/21/2019 11:52	AJH		NUTR/2038
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.25 mg/L	1	0.01	0.04	2/21/2019 11:52	AJH		NUTR/2037

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037703**
Sample ID: **22-12 19-01**

Date Received: 2/20/2019 14:05
Date Collected: 2/20/2019 10:26
Matrix: Surface Water
Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	6.5 NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D								
Total Suspended Solids	3 mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
I - Final dried residue < 2.5 mg as req'd by method								
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	3.4 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	4.3 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	1.2 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology								
Analytical Method: SM 9223B								
E. coli	106 MPN/100mL	2	2		2/20/2019 14:54	JDH		MIC/1999
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	0.92 mg/L	1	0.10	0.40	2/26/2019 08:56	AMC		NUTR/2044
Analytical Method: EPA 365.1								
Total Phosphorus	0.11 mg/L	1	0.01	0.04	2/27/2019 14:46	AMC		NUTR/2061
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.01 U mg/L	1	0.01	0.04	2/21/2019 12:46	ISP		NUTR/2040
Analytical Method: SM 4500NH3H								
Ammonia	0.16 mg/L	1	0.01	0.04	2/21/2019 11:53	AJH	F	NUTR/2038
F - Sample filtered to remove excessive debris								
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.04 mg/L	1	0.01	0.04	2/21/2019 11:53	AJH	F	NUTR/2037
F - Sample filtered to remove excessive debris								

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037704**
Sample ID: **22-16 19-01**

Date Received: 2/20/2019 14:05
Date Collected: 2/20/2019 10:58
Matrix: Surface Water
Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	7.3 NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D								
Total Suspended Solids	13 mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	3.2 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	5.6 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	0.5 U mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	0.6 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	3.8 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology								
Analytical Method: SM 9223B								
E. coli	263 MPN/100mL	2	2		2/20/2019 14:54	JDH		MIC/1999
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	1.00 mg/L	1	0.10	0.40	2/26/2019 08:57	AMC		NUTR/2044
Analytical Method: EPA 365.1								
Total Phosphorus	0.18 mg/L	1	0.01	0.04	2/27/2019 14:47	AMC		NUTR/2061
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.02 I mg/L	1	0.01	0.04	2/21/2019 12:47	ISP		NUTR/2040
Analytical Method: SM 4500NH3H								
Ammonia	0.17 mg/L	1	0.01	0.04	2/21/2019 11:54	AJH	F	NUTR/2038
F - Sample filtered to remove excessive debris								
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.11 mg/L	1	0.01	0.04	2/21/2019 11:54	AJH	F	NUTR/2037
F - Sample filtered to remove excessive debris								

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037705** Date Received: 2/20/2019 14:05 Matrix: Surface Water
Sample ID: **23-08 19-01** Date Collected: 2/20/2019 12:04 Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	1.7	NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D									
Total Suspended Solids	5	mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	10.2	mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	11.6	mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	0.7	mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	1.3	mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	1.6	mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology									
Analytical Method: SM 9223B									
E. coli	1	MPN/100mL	1	1		2/20/2019 14:54	JDH		MIC/1999
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.89	mg/L	1	0.10	0.40	2/26/2019 08:58	AMC		NUTR/2044
Analytical Method: EPA 365.1									
Total Phosphorus	0.05	mg/L	1	0.01	0.04	2/27/2019 14:48	AMC		NUTR/2061
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.01	U mg/L	1	0.01	0.04	2/21/2019 12:48	ISP		NUTR/2040
Analytical Method: SM 4500NH3H									
Ammonia	0.01	U mg/L	1	0.01	0.04	2/21/2019 11:55	AJH		NUTR/2038
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.08	mg/L	1	0.01	0.04	2/21/2019 11:55	AJH		NUTR/2037

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037706**
Sample ID: **LR6-FB 19-01**

Date Received: 2/20/2019 14:05
Date Collected: 2/20/2019 12:50
Matrix: Surface Water
Type: Grab

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Nutrients									
Analytical Method: ASTM D3590-11B									
Total Kjeldahl Nitrogen	0.10 U	mg/L	1	0.10	0.40	2/26/2019 08:59	AMC		NUTR/2044
Analytical Method: EPA 365.1									
Total Phosphorus	0.01 U	mg/L	1	0.01	0.04	2/27/2019 14:49	AMC		NUTR/2061
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.01 U	mg/L	1	0.01	0.04	2/21/2019 12:49	ISP		NUTR/2040
Analytical Method: SM 4500NH3H									
Ammonia	0.01 U	mg/L	1	0.01	0.04	2/21/2019 11:57	AJH		NUTR/2038
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	0.01 U	mg/L	1	0.01	0.04	2/21/2019 11:57	AJH		NUTR/2037

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ANALYTICAL RESULTS

Workorder: 1900377

Lab ID: **190037707**
Sample ID: **29-11 19-01**

Date Received: 2/20/2019 14:05
Date Collected: 2/20/2019 12:51
Matrix: Surface Water
Type: Grab

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	1.3 NTU	1	0.1		2/21/2019 14:58	TMT		CHEM/2279
Analytical Method: SM 2540D								
Total Suspended Solids	7 mg/L	1	1		2/21/2019 12:18	KDP		CHEM/2276
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	9.8 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll a (Uncorrected)	15.3 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll b	1.2 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Chlorophyll c	2.3 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Pheophytin	8.5 mg/m3	1	0.5		2/22/2019 13:32	KAV		CHEM/2273
Microbiology								
Analytical Method: SM 9223B								
E. coli	299 MPN/100mL	2	2		2/20/2019 14:54	JDH		MIC/1999
Nutrients								
Analytical Method: ASTM D3590-11B								
Total Kjeldahl Nitrogen	0.89 mg/L	1	0.10	0.40	2/26/2019 09:01	AMC		NUTR/2044
Analytical Method: EPA 365.1								
Total Phosphorus	0.08 mg/L	1	0.01	0.04	3/2/2019 11:56	AMC		NUTR/2061
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.01 U mg/L	1	0.01	0.04	2/21/2019 12:50	ISP		NUTR/2040
Analytical Method: SM 4500NH3H								
Ammonia	0.01 U mg/L	1	0.01	0.04	2/21/2019 11:58	AJH	F	NUTR/2038
F - Sample filtered to remove excessive debris								
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.01 U mg/L	1	0.01	0.04	2/21/2019 11:58	AJH	F	NUTR/2037
F - Sample filtered to remove excessive debris								

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