



PINELLAS COUNTY UTILITIES LABORATORY
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**CERTIFICATE OF ANALYSIS
SUBMISSION SUMMARY**

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: 1800351

EPA Lab#: FL00123

Profile: Environmental Mgmt - Ambient

Line Item: EMD - Land Run

SAMPLE SITE	SAMPLE NO.	COLLECTED DATE/TIME	RECEIVED DATE/TIME
08-03 18-04	180035101	06/21/2018 08:31	06/21/2018 13:09
10-02 18-04	180035102	06/21/2018 09:09	06/21/2018 13:09
10-06 18-04	180035103	06/21/2018 09:36	06/21/2018 13:09
09-02 18-04	180035104	06/21/2018 10:13	06/21/2018 13:09
15-04 18-04	180035105	06/21/2018 10:55	06/21/2018 13:09
18-06 18-04	180035106	06/21/2018 11:26	06/21/2018 13:09
17-03 18-04	180035107	06/21/2018 12:08	06/21/2018 13:09
17-01 18-04	180035108	06/21/2018 12:28	06/21/2018 13:09

THIS REPORT MEETS NELAC 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 NELAC 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 analyte or that the certified method has been sufficiently modified to accommodate the customer requirements that it no longer qualifies as certified. Results reported from methods referencing other laboratories are reported under their respective certification. Methods designated as "FIELD" are not certified results and are provided from the Chain of Custody for informational purposes only.

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

Terri Grimes

07/13/2018

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

Date



ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035101**
Sample ID: **08-03 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 08:31

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	0.6 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	1 U mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	1.4 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	2 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	1 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	1.0 l mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	373 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	0.62 mg/L	1	0.10	0.40	6/27/2018 13:03	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.13 mg/L	1	0.02	0.04	6/26/2018 14:16	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.11 mg/L	1	0.01	0.04	6/22/2018 10:13	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.01 U mg/L	1	0.01	0.04	6/22/2018 10:11	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.26 mg/L	1	0.02	0.04	6/22/2018 10:11	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035102** Date Received: 6/21/2018 13:09 Matrix: Surface Water
Sample ID: **10-02 18-04** Date Collected: 6/21/2018 09:09

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	1.0 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	1 mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
I - Final, dried residue < 2.5 mg as req'd by method								
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	4.2 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	5.5 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	1.9 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	1.4 l mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	418 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	0.73 mg/L	1	0.10	0.40	6/27/2018 13:05	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.25 mg/L	1	0.02	0.04	6/26/2018 14:17	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.22 mg/L	1	0.01	0.04	6/22/2018 10:14	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.01 l mg/L	1	0.01	0.04	6/22/2018 10:12	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.98 mg/L	1	0.02	0.04	6/22/2018 10:12	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035103**
Sample ID: **10-06 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 09:36

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	3.4 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	5 mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
I - Final, dried residue < 2.5 mg as req'd by method								
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	7.6 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	11 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	1 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	5.3 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	1.3 l mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	450 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	0.87 mg/L	1	0.10	0.40	6/27/2018 13:06	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.16 mg/L	1	0.02	0.04	6/26/2018 14:18	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.11 mg/L	1	0.01	0.04	6/22/2018 10:15	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.03 l mg/L	1	0.01	0.04	6/22/2018 10:14	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.30 mg/L	1	0.02	0.04	6/22/2018 10:14	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035104**
Sample ID: **09-02 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 10:13

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	6.3 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	9 mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	24.7 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	28 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	3.7 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	3.9 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	2.2 mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: ASTM D6503-99								
Enterococci	437 MPN/100mL	10	10		6/21/2018 13:56	KDP		MIC/1163
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	0.80 mg/L	1	0.10	0.40	6/27/2018 13:14	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.21 mg/L	1	0.02	0.04	6/26/2018 14:25	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.08 mg/L	1	0.01	0.04	6/22/2018 10:16	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.01 I mg/L	1	0.01	0.04	6/22/2018 10:15	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.06 mg/L	1	0.02	0.04	6/22/2018 10:15	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035105**
Sample ID: **15-04 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 10:55

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	2.7 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	4 mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	17.5 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	23.1 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	1.4 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	1.5 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	8.4 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	2.1 mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	101 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	1.18 mg/L	1	0.10	0.40	6/27/2018 13:15	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.36 mg/L	1	0.02	0.04	6/26/2018 14:26	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.23 mg/L	1	0.01	0.04	6/22/2018 10:17	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.12 mg/L	1	0.01	0.04	6/22/2018 10:16	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.05 mg/L	1	0.02	0.04	6/22/2018 10:16	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035106**
Sample ID: **18-06 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 11:26

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	0.8 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	1 U mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	1.7 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	2.4 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	1.1 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	0.7 l mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	104 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	0.61 mg/L	1	0.10	0.40	6/27/2018 13:17	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.14 mg/L	1	0.02	0.04	6/26/2018 14:28	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.10 mg/L	1	0.01	0.04	6/22/2018 10:18	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.01 U mg/L	1	0.01	0.04	6/22/2018 10:17	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.07 mg/L	1	0.02	0.04	6/22/2018 10:17	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035107**
Sample ID: **17-03 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 12:08

Parameters	Results Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics								
Analytical Method: SM 2130B								
Turbidity	7.0 NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D								
Total Suspended Solids	5 mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H								
Chlorophyll a (Corrected)	26.0 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	29.8 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5 U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	1.3 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	4.6 mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B								
Biochemical Oxygen Demand	2.6 mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology								
Analytical Method: SM 9223B								
E. coli	744 MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients								
Analytical Method: ASTM D3590-02B								
Total Kjeldahl Nitrogen	1.45 mg/L	1	0.10	0.40	6/27/2018 13:18	AMC		NUTR/1178
Analytical Method: EPA 365.4								
Total Phosphorus	0.27 mg/L	1	0.02	0.04	6/26/2018 14:29	AMC		NUTR/1180
Analytical Method: SM 4500PF								
Orthophosphate as P(Dissolved)	0.12 mg/L	1	0.01	0.04	6/22/2018 10:32	AJH		NUTR/1175
Analytical Method: SM 4500NH3H								
Ammonia	0.13 mg/L	1	0.01	0.04	6/22/2018 10:18	RRM		NUTR/1172
Analytical Method: SM 4500NO3F								
Nitrate+Nitrite (N)	0.80 mg/L	1	0.02	0.04	6/22/2018 10:18	RRM		NUTR/1171

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ANALYTICAL RESULTS

Workorder: 1800351

Lab ID: **180035108**
Sample ID: **17-01 18-04**

Date Received: 6/21/2018 13:09 Matrix: Surface Water
Date Collected: 6/21/2018 12:28

Parameters	Results	Units	DF	LOD	LOQ	Analyzed	By	Qualifiers	QC Batch ID
Inorganics									
Analytical Method: SM 2130B									
Turbidity	3.7	NTU	1	0.1		6/22/2018 13:55	AMC		CHEM/1220
Analytical Method: SM 2540D									
Total Suspended Solids	4	mg/L	1	1		6/22/2018 13:50	AJH		CHEM/1223
Analytical Method: SM 10200H									
Chlorophyll a (Corrected)	10.2	mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll a (Uncorrected)	13.5	mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll b	0.5	U mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Chlorophyll c	0.7	mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Pheophytin	4.8	mg/m3	1	0.5		6/27/2018 15:24	QAC		CHEM/1217
Analytical Method: SM 5210B									
Biochemical Oxygen Demand	1.3	I mg/L	1	0.5	2.0	6/22/2018 09:00	ISP		CHEM/1219
Microbiology									
Analytical Method: SM 9223B									
E. coli	318	MPN/100mL	4	4		6/21/2018 14:12	KDP		MIC/1164
Nutrients									
Analytical Method: ASTM D3590-02B									
Total Kjeldahl Nitrogen	1.05	mg/L	1	0.10	0.40	6/27/2018 13:19	AMC		NUTR/1178
Analytical Method: EPA 365.4									
Total Phosphorus	0.19	mg/L	1	0.02	0.04	6/26/2018 14:30	AMC		NUTR/1180
Analytical Method: SM 4500PF									
Orthophosphate as P(Dissolved)	0.13	mg/L	1	0.01	0.04	6/22/2018 10:22	AJH		NUTR/1175
Analytical Method: SM 4500NH3H									
Ammonia	0.02	I mg/L	1	0.01	0.04	6/22/2018 10:20	RRM		NUTR/1172
Analytical Method: SM 4500NO3F									
Nitrate+Nitrite (N)	1.26	mg/L	1	0.02	0.04	6/22/2018 10:20	RRM		NUTR/1171

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