

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986
812 SW Harvey Green Dr, Madison, FL 32340
3980 Overseas Hwy, Suite 103, Marathon, FL 33050

Phone: 407-339-5984 E83018 (Main Lab)
Phone: 772-343-8006 E86562 (South Lab)
Phone: 850-973-6878 E82405 (North Lab)
Phone: 305-743-8598 E35834 (Keys Lab)

Island Water Association
3651 Sanibel-Captiva Road
Sanibel, FL 33957

PO #: n/a
Client Project #: Monthly Injection Well DMW
Date Sampled: Dec 3, 2019
Dec 12, 2019; Invoice: 420780

Report Summary

Date Received: Dec 4, 2019

FCL Project Manager: Kathryn M. Nordmark

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
420780GW1	DMW	EPA120.1	IAD	Main Lab	Ground Water
		EPA350.1	PCW	Main Lab	
		EPA351.2	VLB	Main Lab	
		EPA375.2	GDP	Main Lab	
		SM2540 C	PLB	Main Lab	
		SM4500-CI E	VLB	Main Lab	
		SM4500-H B	IAD	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAP Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



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Analysis Report

Lab #:	Sampled:	Desc:							
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Specific_Conductance	50700	umhos/cm	1.00	1.00	2.00	10420688	EPA120.1	10-34-4	12/04/19
Lab pH (units)	7.50 Q	pH	1.00	0.0100	0.0200	10420692	SM4500-H B	39-38-4	12/04/19 04:13 PM
TDS	35300	mg/L	1.00	2.50	5.00	10420795	SM2540 C	10-33-3	12/05/19
TKN(as N)	0.905	mg/L	1.00	0.200	0.400	10420809	EPA351.2	7727-37-9	12/05/19
Sulfate	2980	mg/L	20.0	100	200	10420915	EPA375.2	14808-79-8	12/05/19
Chloride	18500	mg/L	200	800	1600	10421085	SM4500-CI E	16887-00-6	12/07/19
Ammonia (as N)	0.166	mg/L	1.00	0.0100	0.0200	10421230	EPA350.1	7664-41-7	12/11/19



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Quality Report

Quality Control Batch: 10420688 **Analyst:** IAD

Blank
Specific_Conductance **Result** 1.00U **Units** umhos/cm

Laboratory Control Sample
Specific_Conductance **Result** 1000 **Units** umhos/cm **Spike** 1000 **%REC** 100.00 **%REC Lim** 80.00-120.00

Quality Control Batch: 10420795 **Analyst:** PLB

Blank
TDS **Result** 2.50U **Units** mg/L

Laboratory Control Sample
TDS **Result** 1490 **Units** mg/L **Spike** 1500 **%REC** 99.07 **%REC Lim** 80.00-120.00

Duplicate
TDS **Result** 622 **Units** mg/L **Sample** 654 **RPD** 5.02 **RPD Lim** 20.00 **Lab Number** 420740GW1

Quality Control Batch: 10420809 **Analyst:** VLB

Blank
TKN(as N) **Result** 0.200U **Units** mg/L

Laboratory Control Sample
TKN(as N) **Result** 2.81 **Units** mg/L **Spike** 3.00 **%REC** 93.76 **%REC Lim** 90.00-110.00

Matrix Spike
TKN(as N) **Result** 3.48 **Units** mg/L **Spike** 3.00 **%REC** 99.46 **%REC Lim** 90.00-110.00 **Sample** 0.494 **Lab Number** 420780GW1



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Quality Control Batch: 10420809		Analyst: VLB						
Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
TKN(as N)	3.48	mg/L	3.00	99.46	90.00-110.00	0.494	0.00	20.00
Quality Control Batch: 10420915		Analyst: GDP						
Blank	Result	Units						
Sulfate	5.00U	mg/L						
Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim			
Sulfate	47.4	mg/L	50.0	94.80	90.00-110.00			
Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample	Lab Number	
Sulfate	92.1	mg/L	50.0	101.60	90.00-110.00	41.3	420678GW1	
Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Sulfate	92.6	mg/L	50.0	102.60	90.00-110.00	41.3	0.54	20.00
Quality Control Batch: 10421085		Analyst: VLB						
Blank	Result	Units						
Chloride	4.00U	mg/L						
Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim			
Chloride	161	mg/L	150	107.33	80.00-120.00			
Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample	Lab Number	
Chloride	114	mg/L	100	102.70	80.00-120.00	11.3	420768GW1	
Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Chloride	114	mg/L	100	102.70	80.00-120.00	11.3	0.00	20.00



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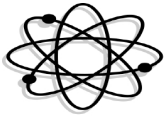
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Quality Control Batch: 10421230		Analyst: PCW						
Blank	Result	Units						
Ammonia (as N)	0.0100U	mg/L						
Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim			
Ammonia (as N)	1.98	mg/L	2.00	99.00	90.00-110.00			
Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample	Lab Number	
Ammonia (as N)	1.86	mg/L	1.40	102.64	90.00-110.00	0.423	420778GW1	
Matrix Spike Duplicate	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Ammonia (as N)	1.86	mg/L	1.40	102.64	90.00-110.00	0.423	0.00	20.00



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Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Check Box that Applies to your location

- Flowers Chemical Laboratories, Inc.
481 Newburyport Ave
Altamonte Springs, FL 32701
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Fax: 407-260-6110
- Flowers Chemical Labs - South
West Park Industrial Plaza
571 NW Mercantile Pl., Ste 111
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- Flowers Chemical Labs - North
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- Flowers Chemical Labs - Keys
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Bus: 305-743-8598
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7.30 29.00

Client Island Water Association	Project Name Monthly Injection Well DMW	P.O. #
	Client Contact Brandon Henke	Fax (239) 472-1505
Address 3651 Sanibel-Captiva Rd. Sanibel, FL 33957	FCL Project Manager Kathryn Nordmark	Email brandon@islandwater.com
Phone (239) 472-2113	Due Date 10 day standard OR	Rush Charges May Apply

Sampled by (Print) Brandon Henke	Pick up Fee \$	Vehicle Surcharge \$	Sampling Fee \$
Sampler Signature <i>[Signature]</i>	Date Sampled 12-3-19		
<input type="checkbox"/> GW-groundwater <input type="checkbox"/> SW-surface water <input type="checkbox"/> DW-drinking water <input type="checkbox"/> S-soil/solid <input type="checkbox"/> SL-sludge <input type="checkbox"/> WW-wastewater <input type="checkbox"/> HW-waste	Preservatives		

Item No	Sample ID	Date	Time	Matrix	(Lab use only) Lab Number	Preservatives						Analyses Requested		Comments	No of Containers
						None	H2SO4	HNO3	HCl	Na2S2O3	Other	pH, Cond, Cl, SO4, TDS	TKN, NH3		
1	DMW	12-3-19	09:00	GW	420780 Gwl	X	X					X	X		
2															
3															
4															
5															
6															
7															
8															
9															
10															
Relinquished by/Affiliation		Date	Time	Received by/Affiliation		Date	Time	Relinquished by/Affiliation		Date	Time	Received by/Affiliation		Date	Time
<i>[Signature]</i>		12-3-19	12:00					<i>[Signature]</i>		12/4	10:15				

Finance Charges Applied to Past Due Invoices

4.300