



UVM	
68 Green Sreet	100623
UVM EWB	
Burlington, VT 05401	

PROJECT: Grey Water reuse Nicaragua
WORK ORDER: **1406-10157**
DATE RECEIVED: June 02, 2014
DATE REPORTED:
SAMPLER: Hanna Anderson

Laboratory Report

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

Laboratory Report

DATE REPORTED:

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001	Site: Laundry #1-5			Date Sampled: 5/14/14		0:00	
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	425	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/3/14	W CM	A	
Chloride	38	mg/L	EPA 300.0	6/3/14	W CM	A	
Hardness, Total as CaCO ₃	145	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	3.5	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	< 5.0	mg/L	EPA 300.0	6/3/14	W CM	A	
Boron, Total	< 0.050	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	42	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	0.034	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	2.7	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	9.8	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.14	mg/L	EPA 200.7	6/6/14	W RGT	A	
Sodium, Total	140	mg/L	EPA 200.7	6/6/14	W RGT	A	

002	Site: Laundry #7,10,11,12			Date Sampled: 5/15/14		0:00	
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	390	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/4/14	W CM	A	
Chloride	56	mg/L	EPA 300.0	6/4/14	W CM	A	
Hardness, Total as CaCO ₃	136	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	2.7	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	87	mg/L	EPA 300.0	6/4/14	W CM	A	
Boron, Total	< 0.050	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	39	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	0.036	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	2.8	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	9.3	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.18	mg/L	EPA 200.7	6/6/14	W RGT	A	
Sodium, Total	180	mg/L	EPA 200.7	6/6/14	W RGT	A	

003	Site: Kitchen #1-5			Date Sampled: 5/14/14		0:00	
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	290	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/4/14	W CM	A	
Chloride	300	mg/L	EPA 300.0	6/4/14	W CM	A	
Hardness, Total as CaCO ₃	227	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	9.1	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	< 5.0	mg/L	EPA 300.0	6/4/14	W CM	A	
Boron, Total	0.071	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	66	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	0.025	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	1.4	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	15	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.19	mg/L	EPA 200.7	6/6/14	W RGT	A	
Sodium, Total		mg/L	EPA 200.7		W	A	

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004	Site: Kitchen #7,8,10,11,12		Date Sampled: 5/15/14		0:00		
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	220	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/4/14	W CM	A	
Chloride	110	mg/L	EPA 300.0	6/4/14	W CM	A	
Hardness, Total as CaCO ₃	172	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	7.7	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	< 5.0	mg/L	EPA 300.0	6/4/14	W CM	A	
Boron, Total	< 0.050	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	49	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	< 0.020	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	1.5	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	12	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.098	mg/L	EPA 200.7	6/6/14	W RGT	A	
Sodium, Total	93	mg/L	EPA 200.7	6/6/14	W RGT	A	

005	Site: Mix 1 #6,9,13		Date Sampled: 5/15/14		0:00		
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	265	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/4/14	W CM	A	
Chloride	92	mg/L	EPA 300.0	6/4/14	W CM	A	
Hardness, Total as CaCO ₃	187	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	5.9	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	< 5.0	mg/L	EPA 300.0	6/4/14	W CM	A	
Boron, Total	0.14	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	55	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	0.051	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	4.4	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	12	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.24	mg/L	EPA 200.7	6/6/14	W RGT	A	
Sodium, Total	140	mg/L	EPA 200.7	6/6/14	W RGT	A	

006	Site: Mix 2 #6,9,13		Date Sampled: 5/15/14		0:00		
Parameter	Result	Units	Method	Analysis Date/Time	Lab/Tech	NELAC	Qual.
Alkalinity, as CaCO ₃	285	mg/L	SM20 2320B(97)	6/9/14	W JSS	N	
Bromide	< 1.0	mg/L	EPA 9056A	6/4/14	W CM	A	
Chloride	95	mg/L	EPA 300.0	6/4/14	W CM	A	
Hardness, Total as CaCO ₃	206	mg/L	EPA 200.7	6/6/14	W RGT	A	
Phosphorus, Total	6.3	mg/L	EPA 6010C	6/6/14	W RGT	N	
Sulfate	< 5.0	mg/L	EPA 300.0	6/4/14	W CM	A	
Boron, Total	0.14	mg/L	EPA 6010C	6/6/14	W RGT	A	
Calcium, Total	61	mg/L	EPA 200.7	6/6/14	W RGT	A	
Copper, Total	0.048	mg/L	EPA 200.7	6/6/14	W RGT	A	
Iron, Total	4.6	mg/L	EPA 200.7	6/6/14	W RGT	A	
Magnesium, Total	13	mg/L	EPA 200.7	6/6/14	W RGT	A	
Manganese, Total	0.27	mg/L	EPA 200.7	6/6/14	W RGT	A	

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006	Site: Mix 2 #6,9,13			Date Sampled: 5/15/14			0:00
Sodium, Total	140	mg/L	EPA 200.7	6/6/14	W RGT	A	