AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results.

Halifax Ragged Lake Compost Facility

ANNUAL REPORT

January – December 2016

Submitted in accordance with Nova Scotia Environment Approval No. 2008-062534-A01

March 15, 2017

AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results.

March 15, 2017

Nova Scotia Department of Environment
Suite 115
Damascus Rd
Bedford, Nova Scotia
B4A 0C1

To Whom It May Concern:

Please find attached to this letter the Annual Report for 2016 for the Halifax Regional Municipality Ragged Lake Source Separated Organics Composting Facility. This report is submitted in accordance with the Nova Scotia Environment Approval No. 2008-062534-A01.

The report includes the following supporting attached information:

1. 2016 Tonnage Report (Appendix I)
2. Compost audits & sampling results (Attachment 1)
3. Storm water pond effluent results (Attachment 2)
4. Registered odour complaints (Attachment 3)
5. Englobe Annual Report which includes field parameters where applicable, and results for:
   - Holding Tank wastewater sampling & Field Parameters
   - Monitoring Well sampling (Attachment 4)
6. New Era Quarterly Floor Inspection Reports - April 2016 & July 2016 (Attachment 5)

If you require additional information, please do not hesitate to contact the undersigned at devans@aimgroup.ca of at 902-876-5185.

Yours truly,

Aim Environmental Group Inc.

[redacted]

Darren Evans
Facility Manager

CC: Dennis Perlotto, AIM Environmental Group Inc.
Robert Orr, Halifax Regional Municipality

Introduction

This report is being submitted in accordance with the requirements of Nova Scotia Environment (NSE) Approval # 2008-062534-A01, dated November 18, 2016, issued to permit operations of the Halifax Ragged Lake Source Separated Organics Compost Facility (Facility), located at 61 Evergreen Place in Halifax, Nova Scotia. This report covers the operating period for the Facility from January 1, 2016 to December 31, 2016, inclusive.

On Sept 30, 2016, New Era Technologies Ltd (Hatch) ended their contract with the Halifax Regional Municipality (HRM) in regards to operation of the Facility. New Era had historically been the long-term owners and operators of the Facility, but ownership of the Facility was transferred to the HRM in 2015. In 2016, the operation of the Facility was tendered out by HRM in search of a new Facility operator. Aim Environmental Group Inc. (AIM) based in Stoney Creek, Ontario was the successful proponent and AIM was awarded the operations of the Facility on behalf of HRM effective October 1, 2016.

The technology employed is an in-vessel containerized technology, utilizing 24 container vessels, each with a capacity of approximately 25 tonnes payload. After the container process, materials are cured in an aerated static pile process for at least another twenty-one days, prior to final screening and testing of finished materials.

Reporting Requirements

As noted above, the facility operates under Approval 2008-062534-A01 issued by the NSE. The Approval requires the submission of annual report on or before March 15th of each year that provides the following required information:

Approval Condition 7c): The Approval Holder shall determine the volume of waste water taken off site for treatment and report the results to the Department along with the wastewater quality data on an annual basis.

Approval Condition 8c): The surface water monitoring results should be submitted annually [covering both storm water and surface water].

Approval Condition 9b): The [groundwater monitoring] results shall be reported to the Department annually.

Approval Condition 11b(iv): The results of compost sampling shall be submitted to the Department on an annual basis.

Approval Condition 12:

a) A summary of feedstock received at the site including:

(i) Types of materials received at the Site during the period.
(ii) Quantities of each specific feedstock received at the Site during the period.
(iii) Quantities of feedstock composted.
(iv) Quantities of feedstock rejected and sent for disposal.
(v) Quantities of overs produced and their disposal location.

b) A summary of the compost quality testing results for the year.

c) A chronological summary of all the water quality (surface water, storm water pond discharge, groundwater, liner sump and wastewater) analysis results for the year. This will be a summary of the water quality analysis and shall include an assessment of the results by a qualified independent agency.

d) Any registered complaints and the actions taken to resolve the issue.

e) Results of the building floor inspection and repair program specified in item 13.3.

Approval Condition 13g): The results of the liner sump monitoring shall be reported to the Department annually.

2016 Results

The following sections presents the results of the 2016 operations of the facility, in numerical order of the reporting requirements in the Approval:

Approval Condition 7c): Total Amount of Wastewater Taken Off-site

The total amount of wastewater removed from the site between January 1st and December 31st, 2016 is as follows:

- Leachate removed from the In-Vessel system was **4,131,231** litres. This liquid is a combination of leachate from the container composting process and any liquids collected on the floors of the receiving and curing buildings. This liquid was taken to S.F. Rendering Ltd in Canard, Nova Scotia for disposal.

- Wastewater removed from the fibreglass and bio-filter tanks was **2,769,682** litres. This liquid is the combination of water collected in the underground liquid collection piping, any liquids collected on the floor of the screening building, and any excess biofilter leachate water which all combines in the fiberglass holding tank. This liquid was also taken to S.F. Rendering Ltd. in Canard, Nova Scotia for disposal.

Approval Condition 8c), 9c), and 12c: **Stormwater, Surface Water, Groundwater, and All Water Quality, Monitoring**

The Facility collects samples from the storm water pond and submits them to an external laboratory for analysis in accordance with Condition 8b) of the Approval. The results of these samples are included in **Attachment 2**. All samples from the pond met the Approval requirements before water discharge by authorized staff.

The Facility engages Englobe to perform its required surface water, groundwater and potable well water monitoring at various principle locations across the site. These locations were determined historically and approved historically by NSE and are sampled and analysed in accordance with the Approval.

Englobe has provided an Annual report with analysis and comparisons of all historical data to date ***(see Attachment 4).*** While Attachment 4 details all the water monitoring carried out at the site, in summary the results for all water quality sampling are consistent with historic results for the facility and no anomalies or specific areas of concern were identified in 2016.

Approval Condition 11b(iv) and 12b): **Compost Testing and Quality**

The facility produced 7,380.90 tonnes of compost in 2016. Trained on-site staff collected and managed all samples for lab analyses by Maxxam Laboratories Ltd up to Sept 30, 2016 and from October - Dec 2016 by A&L Canada Laboratories. Dr. Paul Arnold of Bio-Logic continues to carry out all germination testing on the finished compost product.

Analytical results and testing reports, and letters from Dr. Paul Arnold are attached ***(see Attachment 1).*** Results are compared against the Canadian Council of Ministers Environment (CCME) guidelines for Class A Compost.

The product being shipped from the facility between January and December of 2016 met all the requirements of Class "A" product in accordance with the Approval issued by NSE.

Approval Condition 12a(i): **Summary Feedstock Received - Types of Material**

The Facility receives source separated organic materials from the following principal sources and is generally comprised of material described as:

a) Residential green cart program in the HRM – which is comprised of food waste, leaf and yard waste and some boxboard, along with other fiber and contaminating materials.

b) Source separated organics from commercial sources in the HRM – generally this stream is generated from sources such as restaurants,

grocery stores, fish processing facilities, and to a lesser degree apartment and condominium buildings.

Generally, the Halifax residential green cart material is paper rich resulting in a high carbon to nitrogen ratio. The material from Halifax's commercial sector is reasonably clean. Halifax banned corrugated cardboard from the IC&I sector in late September 2001 and have had great success with alleviating the plastic wrapped and packaged material from IC&I sector through the education process. Further to this, in the early spring of 2015, the Municipality implemented a ban on grass clippings entering the curbside green carts. Along with this, the Municipality allowed boxboard in the curbside paper recycling program thus diverting some boxboard from the green cart organic waste stream.

Approval Condition12a(ii) and 12a(iii): Quantities of Specific Feedstock Received and Composted

Table 1 below summarizes the raw materials received from both residential and commercial streams, material rejected and tonnage composted. The total tonnage composted is equal to the material received less the material rejected. **Appendix I**, presents monthly totals for each stream.

Source	Tonnage
HRM Residential	9456.63
HRM Commercial	8018.93
Total Received	**17475.56**
Tonnes Rejected	177.49
Total Tonnes Composted	**17,298.07**

Table 1 – Summary of 2016 Facility Tonnage

Early in 2016, the roll-off truck which maneuvers the In-Vessel containers - which was severely damaged - was off-site at Nova Enterprise in Truro, NS for major repairs. The roll-off truck did not return to normal operations until late February 2016. After return of the roll-off, time was needed to fully re-establish the full in-vessel process at the facility. During this period, some incoming feedstocks were exported to Fundy Compost in Brookfield, NS for processing on behalf of the HRM and additionally some loads were diverted directly to Miller Waste, HRM's contracted organics facility located in Dartmouth, NS. This is shown in **Appendix I** where negative volumes are shown for incoming residential materials in February and lower than normal residential raw material volumes in March. Overall, this resulted in a lower total annual tonnage processed by the facility in 2016. For the entire year, the total amounts of material that were not sent to the Ragged Lake facility for processing as would normally be the case were approximately as follows:

- Exported to Fundy Compost 1882.74 tonnes
- Diverted to Miller Waste 320.03 tonnes

2202.77 tonnes total

Approval Condition 12a(iv): Quantities of Feedstock Rejected and Sent for Disposal:

Ragged Lake received 17,475.56 tonnes of feedstock in the year 2016. The Facility sorted and rejected 177.49 tonnes of this feedstock at the front end. Thus 17,298.07 tonnes of raw material was composted by the facility in 2016. This raw material tonnage complies with the Approval capacity.

The front-end rejected materials were sent to Otter Lake Waste Processing and Disposal Facility for disposal and consisted predominately of fibrous materials and other non-compostable materials such as metals and plastics.

Ragged Lake shipped an additional 505.91 tonnes of rejected residual material from our back-end process ("back-end residuals"), consisting primarily of plastics, metals and lined or waxed fibrous materials. These materials were shipped to the Kaizer Meadow Landfill in Chester for disposal.

The total amount of front and back end rejected materials was 683.40 tonnes.

Approval Condition 12a(v): Quantities of overs produced and their disposal location

Overs are temporarily stored in the Screening Building and transferred by dump truck to the Receiving Hall for re-processing. These are re-introduced and mixed in with the daily incoming loads of feedstock, both residential and commercial. In doing so this not only helps to absorb the wet commercial organic waste but also assists by kick starting the decomposition stage within the containers (In Vessel Process). Furthermore, by mixing the recycled overs and incoming feedstock, the required porosity is provided in the mixture to ensure adequate airflow and aerobic conditions. Finally, returning overs to the front end further allows removal of any contaminants missed originally.

The total amount of overs recirculated to the front end of the process was 3973.20 tonnes (representing 22.74 % of the incoming raw material tonnage).

Approval Condition 12d): Summary of Registered Complaints (see Attachment 3)

Ragged Lake maintains a log of complaints made to the site regarding off site odours and the actions taken to resolve the concern. There were no complaints registered to the Ragged Lake Compost Facility for 2016.

Approval Condition 12e): **Results of Floor Inspection and Repair Program**

The NSE Approval No. 2008-062534-A01 for the facility requires in Condition 13d) that the floors in the receiving building and curing building be checked on a regular and ongoing basis for cracks, and that cracks be repaired immediately.

Prior to AIM's assumption of Facility management effective October 1, 2017, the Facility when operated by New Era was required to submit quarterly reports to NSE, including reports on the building floor crack inspection and repair programs. The updated approval issued to AIM reduced all required reporting to one annual report, to be submitted annually on or before March 15th of each year.

Attachment 5 presents the last two quarterly reports prepared by New Era, one dated April 12, 2016 and one dated July 11, 2016. The October 2016 quarterly report became no longer required for submission to the NSE as per the conditions in the updated permit.

In regards to work completed in 2016 and work planned for 2017:

Receiving Building:

- Inspections and crack repairs were completed in February and June of 2016; and,
- The receiving building cladding and some structural work will be conducted by an HRM contractor, likely in April 2017, during which the floors will be inspected and repaired as needed.

Curing Building:

- Original planned schedule for 2016 and work completed in 2016:

West (container turner end) **East**

70' section	70' section	80' section	110' section	110' section
Planned Apr. 2016	Planned October 2016	Scheduled for Feb 2017	Planned for Mar. 2016	Planned for Feb 2016
Completed Apr. 2016	Deferred to April 2017	Deferred to Apr. 2017	**Completed in Jan. & Mar. 2016**	**Completed in Feb. 2016**

- The reason for deferring the 70' section planned for October 2016 to April 2017 are as follows:

- High material volumes and equipment issues in Q4-2016 led to decision to defer work to ensure no negative impact to composting process; and,

- HRM's planned reconstruction of the receiving building provides a three-week window in April 2017 to more readily allow inspections and repairs to be carried out, as incoming raw material volumes will be significantly lower during this construction work.

- The updated inspection program for the curing building is as follows:

West (container turner end) **East**

70' section	70' section	80' section	110' section	110' section
Feb. 2018	Apr. 2017	Apr. 2017	Jul. 2017	Feb 2018

- The middle 80' section was deferred from February 2017 to April 2017 to align with the receiving building rebuild and planned three-week shutdown.

The NSE will be notified if there are any significant variations from the 2017 planned floor inspection and repair work for either building as presented in this report.

Approval Condition 13g) Results of Liner Sump Monitoring

The liner sump monitoring program is carried out by Englobe and the detailed program findings are including in Attachment 4. In 2016, the liner sump was dry for all monitoring events.

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Appendix I

2016 Tonnage Report

Halifax Ragged Lake Compost Facility 2016 Report

Month	Residential	Commercial	HRM Totals	HRM NET	Compost	Compost %	Overs	% Overs	Front End Residue	% Front End Residue	Back End Residue	% Back End Residue
January	814.08	635.87	1,449.95	1,409.05	1,070.57	73.83%	12.90	0.89%	28.00	1.93%	0.00	0.00%
February	(459.46)	629.71	170.25	(252.73)	147.00	86.34%	378.40	222.26%	0.00	0.00%	44.56	26.19%
March	332.53	673.98	1,006.51	380.65	-	0.00%	563.30	55.97%	19.83	1.95%	42.93	4.27%
April	852.80	646.95	1,499.75	1,031.65	158.84	10.59%	408.50	27.24%	17.11	1.14%	42.49	2.83%
May	771.99	615.24	1,387.23	945.17	864.65	62.33%	387.00	27.90%	11.41	0.82%	43.65	3.15%
June	617.11	660.12	1,277.23	781.59	653.61	51.17%	430.00	33.67%	13.67	1.07%	51.97	4.07%
July	1,051.62	638.17	1,689.99	1,628.62	340.71	20.16%	0.00	0.00%	9.55	0.57%	51.82	3.07%
August	1,163.97	666.98	1,830.95	1,419.04	525.06	28.68%	356.90	19.49%	10.56	0.58%	44.45	2.43%
September	908.84	728.36	1,637.20	1,112.91	654.23	39.96%	464.40	28.37%	7.76	0.48%	52.11	3.18%
October	1,134.13	709.78	1,843.91	1,482.78	475.42	25.78%	305.30	16.56%	11.86	0.64%	43.97	2.38%
November	1,361.68	715.28	2,076.96	1,686.85	1,081.84	52.09%	326.80	15.73%	20.75	1.00%	42.56	2.05%
December	907.14	698.49	1,605.63	1,193.38	1,408.97	87.75%	339.70	21.16%	27.17	1.69%	45.38	2.83%
Total Tonnes	9,456.63	8,018.93	17,475.56	12,818.96	7380.90	42.24%	3973.20	22.74%	177.49	1.02%	505.91	2.89%

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Attachment 1

Compost Sampling Results & Audits

AIM ENVIRONMENTAL GROUP

Feb 15, 2017

Environmental Monitoring and Compliance
Nova Scotia Department of Environment
Suite 115
30 Damascus Rd
Bedford, Nova Scotia

Re: Confirmation of Compost Sampling

Forty 2-L samples were taken from an unscreened pile representing approximately 1000 tonnes of material and subdivided into quarters on a clean and sanitized tarpaulin. Two opposite quarters were then collected and re-mixed and further subdivided into quarters with the final sample consisting of two of the remaining opposite quarters. Foreign matter analyses are then conducted by Mr. Evans after the material is screened and is reported in terms of foreign matter greater than 25 mm (provincial criteria) as well as total foreign matter. This is screened and is then submitted to Maxxam Analytics or A&L Canada Labs for metals and microbiological tests and to Bio-Logic Environmental Systems for maturity tests.

Yours truly,

[redacted]

Aim Environmental Group
Facility Manager

61 Evergreen Place, Goodwood, NS B3T 1P2 Tel:(902) 876-5185 Fax:(902) 876-5163

Bio-Logic _Environmental Systems_
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

April 3, 2016

New Era Technologies
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

The test results for the compost sample of January 8, 2016 from New Era Technologies are provided below. Samples were obtained from a batch representing approximately 1000 tonnes of material. Maxxam Analytics Inc. tested the sample for metals, which were within the CCME guidelines, as well as Salmonella and fecal coliform, which yielded no detectable presence. In terms of compost maturity, the product has remained within the curing building for over 21 days and the Dewar re-heat test was performed by A&L Labs, which was within the compost standards of the Province (1998).

Summary Analyses of Sample from January 8/16

	Dewar Re-heat Test	Fecal Coliform MPN/g DS	Salmonella MPN/4 g DS	Sharp Foreign Matter >3 mm/ 500 mL	Other Foreign Matter >25 mm[3]/ 500 mL
Standard	≤20°C	<1000	<3	0 fragments	≤ 1 piece
Sample	11.0°C	ND[1]	ND[1,2]	0 fragments	0 pieces

[1]ND=Not Detected [2]presence-absence/25 g (mL) [3]in any dimension

If there are any questions or comments arising from the submitted report, I can be reached at (902) 449 6910.

[redacted]

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

% Foreign Matter (by weight) in Compost

DATE: Jan 18/2016

EMPTY DISH WEIGHT 262 g

INITIAL SAMPLE WEIGHT 1378 g

FOREIGN SAMPLE WEIGHT 270 g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT 100

= 270 − 262 = 8 / 1378 − 262 = 1116

= .717 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 100 − .717 = 99.283

= 99.3 % ACCEPTABLE

Results on foreign matter for Compost Sample # 20160108

- There were no Sharps present in Sample and so nothing to report for 3mm or greater

Maxxam
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Your C.O.C. #: B 148420

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/01/20
Report #: R3857933
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B603762
Received: 2016/01/08, 13:03

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/01/12	ATL SOP 00014	SM 22 4500-Cl- E m
Carbon Nitrogen Ratio by Calculation	1	2016/01/08	2016/01/18		Auto Calc.
Coliform MTM in Solids	1	N/A	2016/01/08	ATL SOP 00067	MFHPB-19/SM22 9221 m
Metals Solids Acid Extr. ICPMS	1	2016/01/12	2016/01/12	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/01/12	2016/01/12	ATL SOP 00003	SM 22 4500-H+ B m
Salmonella in Solid (CFIA)	1	N/A	2016/01/08	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key [redacted]
Ali Tooke
20 Jan 2016 17:33:59 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Maxxam Job #: B603762
Report Date: 2016/01/18

New Era Technologies Ltd

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			BPZ154	
Sampling Date			2016/01/08 11:00	
COC Number			B 148420	
	UNITS	**Criteria**	**20160108**	**RDL**
Metals				
Acid Extractable Aluminum (Al)	mg/kg	-	2200	10
Acid Extractable Antimony (Sb)	mg/kg	-	ND	2.0
Acid Extractable Arsenic (As)	mg/kg	13	2.7	2.0
Acid Extractable Barium (Ba)	mg/kg	-	40	5.0
Acid Extractable Beryllium (Be)	mg/kg	-	ND	2.0
Acid Extractable Bismuth (Bi)	mg/kg	-	ND	2.0
Acid Extractable Boron (B)	mg/kg	-	ND	50
Acid Extractable Cadmium (Cd)	mg/kg	3	0.39	0.30
Acid Extractable Chromium (Cr)	mg/kg	210	9.8	2.0
Acid Extractable Cobalt (Co)	mg/kg	34	1.5	1.0
Acid Extractable Copper (Cu)	mg/kg	100	44	2.0
Acid Extractable Iron (Fe)	mg/kg	-	4600	50
Acid Extractable Lead (Pb)	mg/kg	150	24	0.50
Acid Extractable Lithium (Li)	mg/kg	-	3.3	2.0
Acid Extractable Manganese (Mn)	mg/kg	-	150	2.0
Acid Extractable Mercury (Hg)	mg/kg	0.8	ND	0.10
Acid Extractable Molybdenum (Mo)	mg/kg	5	ND	2.0
Acid Extractable Nickel (Ni)	mg/kg	62	5.5	2.0
Acid Extractable Phosphorus (P)	mg/kg	-	3900	100
Acid Extractable Potassium (K)	mg/kg	-	7400	100
Acid Extractable Rubidium (Rb)	mg/kg	-	7.7	2.0
Acid Extractable Selenium (Se)	mg/kg	2	ND	1.0
Acid Extractable Silver (Ag)	mg/kg	-	ND	0.50
Acid Extractable Strontium (Sr)	mg/kg	-	48	5.0
Acid Extractable Thallium (Tl)	mg/kg	-	ND	0.10
Acid Extractable Tin (Sn)	mg/kg	-	3.5	2.0
Acid Extractable Uranium (U)	mg/kg	-	0.25	0.10
Acid Extractable Vanadium (V)	mg/kg	-	4.7	2.0
Acid Extractable Zinc (Zn)	mg/kg	500	97	5.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected

PASS

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Maxxam Job #: B603762
Report Date: 2016/01/18

New Era Technologies Ltd

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BPZ154	
Sampling Date		2016/01/08 11:00	
COC Number		B 148420	
	UNITS	20160108	RDL
Inorganics			
C:N RATIO	n/a	16	N/A
Chloride (Cl)	mg/kg	5500	100
Soluble (5:1) pH	pH	5.76	N/A

RDL = Reportable Detection Limit
N/A = Not Applicable

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Maxxam Job #: B603762
Report Date: 2016/01/20

New Era Technologies Ltd

RESULTS OF ANALYSES OF SOIL

Maxxam ID			BPZ154	
Sampling Date			2016/01/08 11:00	
COC Number			B 148420	
	UNITS	Criteria	20160108	RDL
Microbiological				
Salmonella	P-A/25g(mL)	ND	ND	N/A
Fecal coliform	MPN/g	1000	ND	2.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Maxxam Job #: B603762
Report Date: 2016/01/20

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]
Andrew VanWychen, Bedford Micro

[redacted]
Mike MacGillivray, Scientific Specialist (Inorganics)

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Stericycle
Environmental Solutions
2889 Sandstone Dr. Hatfield Pa. 19440
(tel)215-822-8995 (fax)215-822-1293

January 18, 2016

Avery Withrow
Maxxam Analytics
200 Bluewater Road, Suite 105
Bedford, NS B4B 1 G9

TEL: (90) 420-0203
FAX 902.420.8612

RE: B603762 Order No.: R16010026

Dear Avery Withrow:

Stericycle Environmental Solutions received 1 sample on 1/12/2016 for the analyses presented in the following Certificate of Analytical Results.

The analyses and all data for associated QC met regulatory and/or laboratory specifications. Exceptions will be noted in an enclosed Case Narrative.

The results on the attached Certificate of Analytical results relate only to items tested or to the samples as received by the laboratory. This Certificate of Analytical Results shall not be reproduced, except in full, without the written approval of Stericycle Environmental Solutions, Hatfield, PA.

Please note that any unused portion of the samples will be disposed of 30 days following issuance of report, unless you have requested otherwise.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

[redacted]

Vaughan O'Neill
Project Manager

Sample Receipt Checklist

Stericycle, Hatfield, Pa

Work Order Number: R16010024

Date/Time received: 1/12/16

Client: Morgan

Checklist completed by: [redacted]

LIMS data entry completed by: VO (Initials) 1/12/16 (Date)

Reviewed by: ______ (Initials) ______ (Date)

1. Carrier: Client (UPS circled) FedEx US Mail Airborne Express Stericycle Courier Other: —
2. Cooler Temperature: ______ °C Specify presence of: Ice Blue Ice No Ice
3. Shipping container/cooler received in good condition? **Yes** No
4. Sample containers received intact? **Yes** No
5. Custody seals intact on shipping container/cooler? Yes No **N/A**
6. Custody seals intact on sample bottles? Yes No **N/A**
7. Chain of custody present? **Yes** No
   If No, have second person check sample delivery group also. **Yes** No Init:
8. Chain of custody signed - relinquished AND received? **Yes** No
9. Chain of custody agrees with sample labels? **Yes** No
   No extraneous or missing samples; all sampling info (sampler, Air Volumes, dates/times, etc) matches
10. Samples received in proper containers including headspace requirements? **Yes** No
11. Do all Containers have sample in them? **Yes** No
12. Are all samples single phase? (e.g. no Oil and Water, no solids >=1% in Liquid, etc.) **Yes** No
    If No the P.M. needs to have instructions from the client on how to properly analyze the samples.
13. Analysis requirements clearly listed on COC? **Yes** No
14. Sufficient sample volume received for indicated tests? **Yes** No
15. All samples received within holding time/sufficient time to start analysis? **Yes** No
16. Volatile samples received with zero headspace? Yes No **N/A**
    Specify: vials (waters) MeOH jars Soil Kit EnCores Other: ______
17. Water - pH acceptable upon receipt? Yes No **N/A**

Any "No" response must be detailed in the comments section below. If a CAR is not initiated, explain why.

Corrective Action/Resolution (Reference CAR ID #):

Client Notification (Regarding which item #s, Date & time, PSC Employee initials, Person contacted):

Comments:

Stericycle Use Only Circle all applicable codes	PM	>24	>4pm	SUB	COMP	UR	QA

MAXXAM ANALYTICS
200 Bluewater Road
Bedford, Nova Scotia, B4B 1G9
Phone: (902) 420-0203
Fax: (902) 420-8612

Maxxam

SUBCONTRACTING REQUEST FORM

Maxxam PM Avery Withrow

R160108-026

To: Bedford to PSC Hatfield

Job# B603762

☐ Yes ☑ No Charge us Rush charges (If rush charges are required to meet due date and Yes box is not checked, please call us)
☐ Yes ☑ No International Sample/BioHazard (if yes, add copy of Movement Cert., heat treat is required prior to disposal)
☐ Yes ☑ No Special Protocol (if yes, Protocol _____)

Sample ID	Matrix	Test(s) Required	Container	Date Sampled	Date Required
BPZ154-01R \ 20160108	S	CHN Analysis in Solids (Sub fr Bedford)	1(D250)	2016/01/08 11:00	2016/01/18

	Temp. 1	Temp. 2	Temp. 3			
Cooler #1				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO
Cooler #2				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO
Cooler #3				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO

Relinquished by (Sign) [redacted] (Print) CARLA HENDERSON Date and Time 2016/01/07 14:48

Received by (Sign) [redacted] (Print) V. O'Neill Date and Time 1/12/16 10:30

NOTES:
1) Please call us if due date cannot be met. Please reference Sample ID on your report.
2) Include copy of this completed form & signed final report to AWithrow@maxxam.ca, and to **BClientSvcSubContr@maxxam.ca**

Reporting Requirements:
National:
Regional:

✓ Correct Location ✓ Hold times okay
✓ Bottle types added ✓ Shipping Inst OK
✓ Correct Tests vs COC ✓ recorded in log
__ Rush okayed by lab __ correct Ids vsCOC
__ SomeRadioactives need acid(check)Initials [redacted]

SHIPPING INSTRUCTIONS
☐ Ship Immediately (highlight Yellow)
☐ Requires 9am
☐ Requires Sat. Delivery
☑ Regular Ship next available day
☐ Ship Cold
☑ Ship Room Temp
☐ Ship Frozen
Sender (Print) [redacted] Initial [redacted]

SHIPPING DEPARTMENT CHECKLIST
☐ Correct Shipping location
☐ Correct Sample Ids (Paperwork vs Bottles)
☐ Yes ☐ No Special-Cooler, Ice, Tape-custody seal. Date&Sign
Date Shipped Jan. 11/16 Number of coolers _____
Shipper (Print) _____ Initial [redacted]

Stericycle Environmental Solutions
2869 Sandstone Dr. Hatfield Pa. 19440
(tel)215-822-8965 (fax)215-822-1289

Certificate of Analytical Results

Date: *18-Jan-16*

CLIENT: Maxxam Analytics
200 Bluewater Road, Suite 105
Bedford, NS B4B 1 G9

Lab Order: R16010026

Project: B603762

Analyses	As Received Basis	Dry Basis	Units	Method	Date	Analyst
BPZ154-01R\20160108						
Lab ID: R16010026-01A						
Date Sampled: 01/08/2016	**Date Received:** 01/12/2016			**Matrix:** SOLID		
PERCENT MOISTURE						
Moisture, Total	39.1		%	D 2216	18-Jan-16	KKUS
CARBON, HYDROGEN, NITROGEN, OXYGEN						
Carbon	24.1	39.6	%	D5291/537	18-Jan-16	KKUS
Hydrogen (Excl. H in Moisture)	3.10	5.09	%			
Nitrogen	1.48	2.43	%			

< Indicates less than the limit of quantitation

H - Hold Time exceedance

Maxxam Analytics International Corporation

49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

COC #: B 148420

Page 1 of 1

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			16	19	20	

Integrity: YES NO
Integrity / Checklist by
Labelled by
Location / Bin #

INVOICE INFORMATION:
Company Name: NewFern Technologies
Contact Name: Darren Evans
Address: 61 Evergreen Pl Cochrane NS
Postal Code: B3T 1P2
Email: [redacted]
Ph: [redacted] Fax: [redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code:
Email:
Ph: Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Please fax/e-mail results ASAP
(Reg. Service)

[redacted]

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Soil Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	20160108 Bag		Jan 8 10:00		Fecal Coliform + Salmonella
2					
3	20160108 Jar		Jan 8 11:00		pH, C:N, P, K, Cl metals + Hg
4					
5					
6					
7					
8					
9					
10					

2016 JAN 8 13:03

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Jan 8/16	11:00 Am	[redacted] Alison Wheeler		

REPORT NO.
C16021-70005

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:NEW ERA TECHNOLOGIES
61 EVERGREEN PLACE
GOODWOOD, NS B3T 1P2
CANADA
CANADA
ATTN:Darren Evans

Phone:
Fax:

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:7691
LAB NUMBER:217011
SAMPLE ID:20160108

SAMPLE MATRIX:COMPOST
DATE SAMPLED:2016-01-08
DATE RECEIVED:2016-01-21
DATE REPORTED:2016-02-05
DATE PRINTED:2016-02-05

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Dewar (Heating Test)	IV*			TMECC.05.08-D
Dewar Temperature Rise	11.0	deg. C	1.0	TMECC 05.08-D
Compost Stability Index	6	---		TMECC.05.08-B
Respiration-mgCO2-C/g OM/day	5.60	mgCO2-C/gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO2-C/g TS/day	4.20	mgCO2-C/gTS/day	0.01	TMECC.05.08-B

Comment:

Maturity Index: 6 - Curing; aeration requirement reduced; compost ready for piling; significantly reduced management requirements.
Stability Index: IV* - Maturing, moderately stable compost.

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C16021-70005

Results Authorized By:

Haifeng Song, Senior Chemist / Agriculture Supervisor

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

May 2, 2016

New Era Technologies
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

The test results for the compost sample representing approximately 1000 tonnes of material of January 29, 2016 from New Era Technologies are provided below. Maxxam Analytics Inc. tested the sample for metals (which were within the CCME guidelines) and Salmonella and fecal coliform (which were not detected). The product has remained within the curing building for over 21 days and the Dewar re-heat test (performed by A&L Labs) was within the compost standards of the Province (1998) indicating a mature product.

Summary Analyses of Sample from January 29/16

	Dewar Re-heat Test	Fecal Coliform MPN/g DS	Salmonella MPN/4 g DS	Sharp Foreign Matter >3 mm/ 500 mL	Other Foreign Matter >25 mm[3]/ 500 mL
Standard	≤20°C	<1000	<3	0 fragments	≤ 1 piece
Sample	14.0°C	ND[1]	ND[1,2]	0 fragments	0 pieces

[1]ND=Not Detected [2]presence-absence/25 g (mL) [3]in any dimension

Any questions or comments arising from the submitted report can be directed my way at (902) 449 6910.

[redacted]

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

% Foreign Matter (by weight) in Compost

DATE: FEB 5/2016

EMPTY DISH WEIGHT	262.0	g
INITIAL SAMPLE WEIGHT	1226.0	g
FOREIGN SAMPLE WEIGHT	268.0	g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT × 100

= 268 - 262 = 6.0 / 1226 - 262 = 964.0

= .622 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 100 - .622 = 99.377

= 99.4 % ACCEPTABLE

Paul

Here are the results on foreign matter + Sharps.
for Compost Sample # 20160179

No Sharps were present in sample and so nothing 3mm or greater to be measured.

[redacted]
New Era. Tech.

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148421

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/02/
Report #: R38870
Version: 2 - Fir

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B618035
Received: 2016/01/28, 14:31

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/02/04	ATL SOP 00014	SM 22 4500-Cl- E m
Carbon Nitrogen Ratio by Calculation	1	2016/01/28	2016/02/08		Auto Calc.
Coliform MTM in Solids	1	N/A	2016/01/29	ATL SOP 00067	MFHPB-19/SM22 9221 n
Metals Solids Acid Extr. ICPMS	1	2016/02/04	2016/02/04	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/02/03	2016/02/04	ATL SOP 00003	SM 22 4500-H+ B m
CHN/Protein by Combustion	1	2016/02/08	2016/02/08	ATL SOP 00046	AOAC 990.03 m
Salmonella in Solid (CFIA)	1	N/A	2016/01/29	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key [redacted] Rachael Mansfield
8 Feb 2016 15:57:03 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B618035
Report Date: 2016/02/04

New Era Technologies Ltd

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			BSX058	
Sampling Date			2016/01/28 14:00	
COC Number			B 148421	
	UNITS	Criteria	20160129	RDL
Metals				
Acid Extractable Aluminum (Al)	mg/kg	-	2000	10
Acid Extractable Antimony (Sb)	mg/kg	-	ND	2.0
Acid Extractable Arsenic (As)	mg/kg	13	2.4	2.0
Acid Extractable Barium (Ba)	mg/kg	-	36	5.0
Acid Extractable Beryllium (Be)	mg/kg	-	ND	2.0
Acid Extractable Bismuth (Bi)	mg/kg	-	ND	2.0
Acid Extractable Boron (B)	mg/kg	-	ND	50
Acid Extractable Cadmium (Cd)	mg/kg	3	ND	0.30
Acid Extractable Chromium (Cr)	mg/kg	210	9.1	2.0
Acid Extractable Cobalt (Co)	mg/kg	34	1.2	1.0
Acid Extractable Copper (Cu)	mg/kg	100	37	2.0
Acid Extractable Iron (Fe)	mg/kg	-	4300	50
Acid Extractable Lead (Pb)	mg/kg	150	23	0.50
Acid Extractable Lithium (Li)	mg/kg	-	3.0	2.0
Acid Extractable Manganese (Mn)	mg/kg	-	120	2.0
Acid Extractable Mercury (Hg)	mg/kg	0.8	ND	0.10
Acid Extractable Molybdenum (Mo)	mg/kg	5	ND	2.0
Acid Extractable Nickel (Ni)	mg/kg	62	5.4	2.0
Acid Extractable Phosphorus (P)	mg/kg	-	3200	100
Acid Extractable Potassium (K)	mg/kg	-	5200	100
Acid Extractable Rubidium (Rb)	mg/kg	-	6.1	2.0
Acid Extractable Selenium (Se)	mg/kg	2	ND	1.0
Acid Extractable Silver (Ag)	mg/kg	-	ND	0.50
Acid Extractable Strontium (Sr)	mg/kg	-	41	5.0
Acid Extractable Thallium (Tl)	mg/kg	-	ND	0.10
Acid Extractable Tin (Sn)	mg/kg	-	3.5	2.0
Acid Extractable Uranium (U)	mg/kg	-	0.23	0.10
Acid Extractable Vanadium (V)	mg/kg	-	4.3	2.0
Acid Extractable Zinc (Zn)	mg/kg	500	75	5.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.ca

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148421

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/02,
Report #: R3878
Version: 1 - Par

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B618035
Received: 2016/01/28, 14:31

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/02/04	ATL SOP 00014	SM 22 4500-Cl- E m
Metals Solids Acid Extr. ICPMS	1	2016/02/04	2016/02/04	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/02/03	2016/02/04	ATL SOP 00003	SM 22 4500-H+ B m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key [redacted] Rachael Mansfield
04 Feb 2016 17:08:08 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B618035
Report Date: 2016/02/04

New Era Technologies Ltd

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX058	
Sampling Date		2016/01/28 14:00	
COC Number		B 148421	
	UNITS	20160129	RDL
Inorganics			
Chloride (Cl)	mg/kg	4000	100
Soluble (5:1) pH	pH	4.90	N/A

RDL = Reportable Detection Limit
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.c

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B618035
Report Date: 2016/02/08

New Era Technologies Ltd

MICROBIOLOGY (SOIL)

Maxxam ID			BSX058	
Sampling Date			2016/01/28 14:00	
COC Number			B 148421	
	UNITS	Criteria	20160129	RDL
Microbiological				
Salmonella	P-A/25g(mL)	ND	ND	N/A
Fecal coliform	MPN/g	1000	ND	2.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B618035
Report Date: 2016/02/08

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Colleen Acker, Supervisor, General Chemistry

[redacted]

Kevin MacDonald, Inorganics Supervisor

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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MAXXAM Analytics

200 Bluewater Road, Suite 105, Bedford, Nova Scotia B4B 1G9 Tel: 902-420-0203 Fax: 902-420-8612 Toll Free: 1-800-565-7227
49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148421 Page 1 of 1

This column for lab use only:	INVOICE INFORMATION:	REPORT INFORMATION (if differs from invoice):		TURNAROUND TIME
Client Code	Company Name: Newton Technologies	Company Name:	PO #	Standard ☐
Maxxam Job #	Contact Name: Dawn Evans	Contact Name:	Project # / Phase #	10 day ☐
	Address: 61 [illegible] Place	Address:	Project Name / Site Location	If RUSH Specify Date:
	[illegible] N.S. Postal Code B3J 1P2	Postal Code	Quote	
	Email: [redacted]	Email:	Site #	Pre-schedule rush work
	Ph: [redacted] Fax: [redacted]	Ph: Fax:	Task Order #	Charge for # Jars used but not submitted
			Sampled by	

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			28	23	27	

Integrity: YES NO — Integrity / Checklist by:

Labelled by: — Location / Bin #:

Guideline Requirements / Detection Limits / Special Instructions

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	20160129 Bag		Jan 29 2:00 PM		[illegible]
2	20160129 Jar		Jan 29 2:00 PM		[illegible] metals + Hg
3					
4					
5					
6					
7					
8					
9					
10					

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Jan 29/16	2:00 PM	[redacted] Olia Henderson		

White: Maxxam Yellow: Mail Pink: Client

2016 JAN 29 14:37

ATL FCD 00149 / Revision 101

REPORT NO.
C16034-70000

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:NEW ERA TECHNOLOGIES
61 EVERGREEN PLACE
GOODWOOD, NS B3T 1P2
CANADA
CANADA
ATTN:Darren Evans

Phone:902-876-5185
Fax:902-876-5163

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:7703
LAB NUMBER:347001
SAMPLE ID:20160129

SAMPLE MATRIX:COMPOST
DATE SAMPLED:2016-01-29
DATE RECEIVED:2016-02-03
DATE REPORTED:2016-02-19
DATE PRINTED:2016-02-19

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Dewar (Heating Test)	IV*			TMECC.05.08-D
Dewar Temperature Rise	14.0	deg. C	1.0	TMECC 05.08-D
Compost Stability Index	4	---		TMECC.05.08-B
Respiration-mgCO2-C/g OM/day	8.40	mgCO2-C/gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO2-C/g TS/day	6.40	mgCO2-C/gTS/day	0.01	TMECC.05.08-B

Comment:

Maturity Index: 4 - Compost in medium or moderately active stage of decomposition; needs on-going management.
Stability Rating: IV* - Maturing, moderately stable compost.

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed.

C16034-70000

Results Authorized By: [redacted]

Haifeng Song, Senior Chemist / Agriculture Supervisor

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

August 8, 2016

New Era Technologies
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

Compost sample tests from approximately 1000 tonnes of material sampled on April 19/16 from New Era Technologies are complete. The manner in which the results are reported have been modified from past reports to better reflect the threshold requirements as stated in the Provincial guidelines and the testing techniques performed. In particular, the Salmonella is tested by Maxxam Analytics Inc. on a basis of a 25 g-sample, and the contaminants evaluated in-house are reported in terms of sharps greater than 1/8" (3.18 mm) and foreign matter greater than 25 mm.

Maxxam Analytics Inc. tested the sample for metals, pathogens (E. Coli & Salmonella) and the C:N ratio; all 11 metals were within Provincial guidelines, pathogen presence was not detected, and the C:N ratio was below the threshold of 25:1. The germination and growth tests were performed by *Bio-Logic* Environmental Systems; both the cress and radish germinations and growth tests were above the required minimum threshold for stable compost according to the standards of the Province. The results are summarized in Table 1.

If any questions or comments arise from the submitted report, please give me a call.

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

Table 1. Summary Analyses of Sample from April 19/16

	Germination /10 seeds		Growth g/plant		C:N Ratio	Fecal Coliform MPN/g DS	Salmonella P-A/25 g DS	Foreign Matter >25mm	Sharps >3.18 mm
	Cress	Radish	Cress	Radish					
Standard	>6.53	>7.43	>0.017	>0.107	≤25:1	<1000	<3	1 piece	0 g
Sample	8.75	7.5	0.054	0.283	16.8:1	ND	ND	0	0 g (no visible sharps of any size)

ND=Not Detected MPN=Most Probable Number DS=Dried Solids

% Foreign Matter (by weight) in Compost

DATE: May 21 2016

EMPTY DISH WEIGHT	262.0	g
INITIAL SAMPLE WEIGHT	1318.6	g
FOREIGN SAMPLE WEIGHT	270.0	g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT 100

= 270 - 262 = 8 / 1318 - 262 = 1056

= .0075 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 99.242

= 99.2 % ACCEPTABLE

There we no sharps present so nothing to measure from the sample Screening

Paul here are the results on foreign matter in regards to Compost Sample # 20160419

Thanks,
Darren

Maxxam Job #: B677413
Report Date: 2016/04/26

New Era Technologies Ltd
Site Location: BALE
Sampler Initials: DE

MICROBIOLOGY (SOIL)

Maxxam ID			CFF186	
Sampling Date			2016/04/19 14:30	
COC Number			B 148426	
	UNITS	Criteria	20160419	RDL
Microbiological				
Salmonella	P-A/25g(mL)	ND	ND	N/A
Fecal coliform	MPN/g	1000	ND	2.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected
N/A = Not Applicable

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Maxxam Job #: B677413
Report Date: 2016/04/27

New Era Technologies Ltd
Site Location: BALE
Sampler Initials: DE

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			CFF186	
Sampling Date			2016/04/19 14:30	
COC Number			B 148426	
	UNITS	Criteria	20160419	RDL
Metals				
Acid Extractable Aluminum (Al)	mg/kg	-	2000	10
Acid Extractable Antimony (Sb)	mg/kg	-	ND	2.0
Acid Extractable Arsenic (As)	mg/kg	13	2.4	2.0
Acid Extractable Barium (Ba)	mg/kg	-	42	5.0
Acid Extractable Beryllium (Be)	mg/kg	-	ND	2.0
Acid Extractable Bismuth (Bi)	mg/kg	-	ND	2.0
Acid Extractable Boron (B)	mg/kg	-	ND	50
Acid Extractable Cadmium (Cd)	mg/kg	3	ND	0.30
Acid Extractable Chromium (Cr)	mg/kg	210	7.8	2.0
Acid Extractable Cobalt (Co)	mg/kg	34	1.3	1.0
Acid Extractable Copper (Cu)	mg/kg	400	37	2.0
Acid Extractable Iron (Fe)	mg/kg	-	4700	50
Acid Extractable Lead (Pb)	mg/kg	150	19	0.50
Acid Extractable Lithium (Li)	mg/kg	-	3.4	2.0
Acid Extractable Manganese (Mn)	mg/kg	-	160	2.0
Acid Extractable Mercury (Hg)	mg/kg	0.8	ND	0.10
Acid Extractable Molybdenum (Mo)	mg/kg	5	ND	2.0
Acid Extractable Nickel (Ni)	mg/kg	62	5.6	2.0
Acid Extractable Phosphorus (P)	mg/kg	-	4000	100
Acid Extractable Potassium (K)	mg/kg	-	6700	100
Acid Extractable Rubidium (Rb)	mg/kg	-	7.3	2.0
Acid Extractable Selenium (Se)	mg/kg	2	ND	1.0
Acid Extractable Silver (Ag)	mg/kg	-	ND	0.50
Acid Extractable Strontium (Sr)	mg/kg	-	49	5.0
Acid Extractable Thallium (Tl)	mg/kg	-	ND	0.10
Acid Extractable Tin (Sn)	mg/kg	-	2.6	2.0
Acid Extractable Uranium (U)	mg/kg	-	0.21	0.10
Acid Extractable Vanadium (V)	mg/kg	-	4.5	2.0
Acid Extractable Zinc (Zn)	mg/kg	700	110	5.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected

FAXED Paul

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Site Location: BALE
Your C.O.C. #: B 148426

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/04/27
Report #: R3974193
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B677413
Received: 2016/04/19, 15:51

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/04/27	ATL SOP 00014	SM 22 4500-Cl- E m
Carbon Nitrogen Ratio by Calculation	1	2016/04/19	2016/04/26		Auto Calc.
Coliform MTM in Solids	1	N/A	2016/04/20	ATL SOP 00067	MFHPB-19/SM22 9221 m
Metals Solids Acid Extr. ICPMS	1	2016/04/25	2016/04/25	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/04/25	2016/04/26	ATL SOP 00003	SM 22 4500-H+ B m
CHN/Protein by Combustion	1	2016/04/26	2016/04/26	ATL SOP 00046	AOAC 990.03 m
Salmonella in Solid (CFIA)	1	N/A	2016/04/20	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
27 Apr 2016 16:48:53 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Site Location: BALE
Your C.O.C. #: B 148426

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/04/26
Report #: R3972556
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B677413
Received: 2016/04/19, 15:51

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Coliform MTM in Solids	1	N/A	2016/04/20	ATL SOP 00067	MFHPB-19/SM22 9221 m
Salmonella in Solid (CFIA)	1	N/A	2016/04/20	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key Maxxam Maxxam 26 Apr 2016 08:59:54 -03:00

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Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B677413
Report Date: 2016/04/27

New Era Technologies Ltd
Site Location: BALE
Sampler Initials: DE

RESULTS OF ANALYSES OF SOIL

Maxxam ID		CFF186	
Sampling Date		2016/04/19 14:30	
COC Number		B 148426	
	UNITS	20160419	RDL
Inorganics			
C:N RATIO	n/a	17	N/A
Carbon	%	42	0.50
Chloride (Cl)	mg/kg	6800 (1)	100
Hydrogen	%	6.5	0.50
Nitrogen	%	2.5	0.20
Soluble (5:1) pH	pH	5.22	N/A

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Analyzed and reported using a non-routine ratio.

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www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148426 Page 1 of 1

This column for lab use only:

Client Code

Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			23	23	21	

Integrity YES NO

Integrity / Checklist by

Labelled by

Location / Bin #

INVOICE INFORMATION:

Company Name: New Era Tech

Contact Name: Darren

Address: 61 Evergreen Place

Postal Code: Greenwood, N.S. B3T 1P2

Email: [redacted]

Ph: [redacted] Fax: [redacted]

REPORT INFORMATION (if differs from invoice):

Company Name:

Contact Name:

Address:

Postal Code

Email:

Ph: Fax:

PO #

Project # / Phase #

Project Name / Site Location

Quote

Site # Bale

Task Order #

Sampled by DE & MD

TURNAROUND TIME

Standard ☐

10 day ☐

If RUSH Specify Date:

Pre-schedule rush work

Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions

Email Results ASAP - Thanks

Ray Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss-Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HClO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Reg'd for CCME Residential, Parkland, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Soil Probable, NS Fuel Oil Soil Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline	
1 20160419		2:30pm April 19	Bag																		Fecal Coli & Salmonella
2																					
3 20160419		April 19 2:30	Jar																		pH, Cl, N, P, K, Cl, metals + Hg
4																					
5																					
6																					
7																					
8																					
9																					
10																					

2016 APR 19 15:51

RELINQUISHED BY: (Signature/Print) [redacted] Date: April 19 2016 Time:

RECEIVED BY: (Signature/Print) [redacted] Date: Time: SARA MASON

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

August 8, 2016

New Era Technologies
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

Compost sample tests from approximately 1000 tonnes of material sampled on June 8/16 from New Era Technologies are complete. The manner in which the results are reported have been modified from past reports to better reflect the threshold requirements as stated in the Provincial guidelines and the testing techniques performed. In particular, the Salmonella is tested by Maxxam Analytics Inc. on a basis of a 25 g-sample, and the contaminants evaluated in-house are reported in terms of sharps greater than 1/8" (3.18 mm) and foreign matter greater than 25 mm.

Maxxam Analytics Inc. tested the sample for metals pathogens (E. Coli & Salmonella), and the C:N ratio; all 11 metals were within Provincial guidelines, pathogen presence was not detected, and the C:N ratio was below the threshold of 25:1. The germination and growth tests were performed by *Bio-Logic* Environmental Systems; both the cress and radish germinations and growth tests were above the required minimum threshold for stable compost according to the standards of the Province. The results are summarized in Table 1.

If any questions or comments arise from the submitted report, please give me a call.

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

Table 1. Summary Analyses of Sample from June 8/16

	Germination /10 seeds		Growth g/plant		C:N Ratio	Fecal Coliform MPN/g DS	Salmonella P-A/25 g DS	Foreign Matter >25mm	Sharps >3.18 mm
	Cress	Radish	Cress	Radish					
Standard	>6.53	>7.43	>0.017	>0.107	≤25:1	<1000	<3	1 piece	0 g
Sample	9.50	7.5	0.047	0.239	17.6:1	ND	ND	0	0 g (no visible sharps of any size)

ND=Not Detected MPN=Most Probable Number DS=Dried Solids

% Foreign Matter (by weight) in Compost

FAXED Paul D

DATE: June 20/2016

EMPTY DISH WEIGHT 262.0 g

INITIAL SAMPLE WEIGHT 270.0 g

FOREIGN SAMPLE WEIGHT 1382.0 g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT × 100

= 270 - 262 = 8

1382 - 262 = 1120

= .714 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 100 - .714 = 99.285

= 99.3 % ACCEPTABLE

Paul,

Results on foreign matter for Compost Sample ~~#20160608~~ #20160608

There were no shamps present so there are no results that could be taken for greater than 3 mm

Thanks

[redacted]

New Era

Maxxam Job #: B6B6897
Report Date: 2016/06/16

New Era Technologies Ltd

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			CMN975	
Sampling Date			2016/06/08	
COC Number			B 148430	
	UNITS	Criteria	20160608 JAR	RDL
Metals				
Acid Extractable Aluminum (Al)	mg/kg	-	1900	10
Acid Extractable Antimony (Sb)	mg/kg	-	ND	2.0
Acid Extractable Arsenic (As)	mg/kg	13	2.2	2.0
Acid Extractable Barium (Ba)	mg/kg	-	50	5.0
Acid Extractable Beryllium (Be)	mg/kg	-	ND	2.0
Acid Extractable Bismuth (Bi)	mg/kg	-	ND	2.0
Acid Extractable Boron (B)	mg/kg	-	ND	50
Acid Extractable Cadmium (Cd)	mg/kg	3	0.33	0.30
Acid Extractable Chromium (Cr)	mg/kg	210	8.8	2.0
Acid Extractable Cobalt (Co)	mg/kg	34	1.4	1.0
Acid Extractable Copper (Cu)	mg/kg	400	41	2.0
Acid Extractable Iron (Fe)	mg/kg	-	4500	50
Acid Extractable Lead (Pb)	mg/kg	150	30	0.50
Acid Extractable Lithium (Li)	mg/kg	-	2.5	2.0
Acid Extractable Manganese (Mn)	mg/kg	-	180	2.0
Acid Extractable Mercury (Hg)	mg/kg	0.8	ND	0.10
Acid Extractable Molybdenum (Mo)	mg/kg	5	ND	2.0
Acid Extractable Nickel (Ni)	mg/kg	62	5.7	2.0
Acid Extractable Phosphorus (P)	mg/kg	-	4100	100
Acid Extractable Potassium (K)	mg/kg	-	7400	100
Acid Extractable Rubidium (Rb)	mg/kg	-	7.8	2.0
Acid Extractable Selenium (Se)	mg/kg	2	ND	1.0
Acid Extractable Silver (Ag)	mg/kg	-	ND	0.50
Acid Extractable Strontium (Sr)	mg/kg	-	54	5.0
Acid Extractable Thallium (Tl)	mg/kg	-	ND	0.10
Acid Extractable Tin (Sn)	mg/kg	-	2.8	2.0
Acid Extractable Uranium (U)	mg/kg	-	0.23	0.10
Acid Extractable Vanadium (V)	mg/kg	-	4.2	2.0
Acid Extractable Zinc (Zn)	mg/kg	700	110	5.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected

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Site#: BALE
Your C.O.C. #: B 148430

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/06/16
Report #: R4030695
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B6897
Received: 2016/06/08, 16:40

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/06/15	ATL SOP 00014	SM 22 4500-Cl- E m
Carbon Nitrogen Ratio by Calculation	1	2016/06/08	2016/06/16		Auto Calc.
Coliform MTM in Solids	1	N/A	2016/06/09	ATL SOP 00067	MFHPB-19/SM22 9221 m
Metals Solids Acid Extr. ICPMS	1	2016/06/14	2016/06/14	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/06/14	2016/06/15	ATL SOP 00003	SM 22 4500-H+ B m
CHN/Protein by Combustion	1	2016/06/16	2016/06/16	ATL SOP 00046	AOAC 990.03 m
Salmonella in Solid (CFIA)	1	N/A	2016/06/09	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
16 Jun 2016 15:49:05 -03:00

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Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B686897
Report Date: 2016/06/16

New Era Technologies Ltd

RESULTS OF ANALYSES OF SOIL

Maxxam ID		CMN975	
Sampling Date		2016/06/08	
COC Number		B 148430	
	UNITS	20160608 JAR	RDL
Inorganics			
C:N RATIO	n/a	18	N/A
Carbon	%	44	0.50
Chloride (Cl)	mg/kg	4900 (1)	75
Nitrogen	%	2.5	0.20
Soluble (5:1) pH	pH	5.41	N/A

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Due to sample matrix, extraction was done using a non-routine extraction ratio.The chloride analysis was done using this extract.

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Site#: BALE
Your C.O.C. #: B 148430

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/06/16
Report #: R4030469
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B6B6897
Received: 2016/06/08, 16:40

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Coliform MTM in Solids	1	N/A	2016/06/09	ATL SOP 00067	MFHPB-19/SM22 9221 m
Salmonella in Solid (CFIA)	1	N/A	2016/06/09	ATL SOP 00073	MFHPB-20 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
16 Jun 2016 13:26:42 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6B6897
Report Date: 2016/06/16

New Era Technologies Ltd

MICROBIOLOGY (SOIL)

Maxxam ID			CMN974	
Sampling Date			2016/06/08	
COC Number			B 148430	
	UNITS	Criteria	20160608 BAG	RDL
Microbiological				
Salmonella	P-A/25g(mL)	ND	ND	N/A
Fecal coliform	MPN/g	1000	ND	2.0

RDL = Reportable Detection Limit
Criteria: New ERA Requested Compost Criteria
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B686897
Report Date: 2016/06/16

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andrew VanWychen, Bedford Micro

Colleen Acker, Supervisor, General Chemistry

Mike MacGillivray, Scientific Specialist (Inorganics)

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Maxxam Analytics International Corporation

49 Elizabeth Ave., St John's, NL A1A 1W9
90 Esplanade Sydney, NS B1P 1A1
www.maxxamanalytics.com
Tel: 709-754-0203 Fax: 709-754-0212
Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
E-mail: Clientservicesbedford@maxxamanalytics.com

COC #: B 148430 Page 1 of 1

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			20.3	20.3	20	

Integrity YES NO
Integrity / Checklist by
Labelled by
Location / Bin #

INVOICE INFORMATION:
Company Name: New Era Technologies
Contact Name: Darren Evans
Address: 61 Fuel Green Place
Postal Code B3T 1P2
Email: [redacted]
Ph: [redacted] Fax:

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code
Email:
Ph: Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site # Bale
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
please fax/e-mail results ASAP
(Reg. service)

biologic@nssympatico.ca

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HClO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable, NS Fuel – Oil Soil Policy Low Level BTEX, C6-C32)	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline	
1 20160608 Bac																					Fecal coliform & Salmonella
2																					
3 20160608 Jar																					pH, cN, P, K, Cl, metals, Hg.
4																					
5																					
6																					
7																					
8																					
9																					
10																					

RELINQUISHED BY: (Signature/Print) Darren Evans [redacted] Date: June 8/16 Time: 3:30 pm

RECEIVED BY: (Signature/Print) [redacted] MARYANN COMEAU Date: 2016 JUN 8 Time: 16:40

White: Maxxam Yellow: Mail Pink: Client

ATL FCD 00149 / Revision 10

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

November 14, 2016

New Era Technologies
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

The test results for the compost sample of September 15, 2016 from New Era Technologies are provided below. Samples were obtained from a batch representing approximately 1000 tonnes of material. Maxxam Analytics Inc. tested the sample for metals which were within the CCME guidelines, as well as salmonella and fecal coliform, which yielded no detectable presence of either pathogen. The Dewar re-heat test was performed by A&L Canada Laboratories Inc., which was within the 1998 compost standards of the Province.

Summary Analyses of Sample from September 15/16

	Compost Will Not Re-heat	Compost Cured	Fecal Coliform MPN/g DS	Salmonella MPN/4 g DS	Sharp Foreign Matter >3 mm/500 mL	Other Foreign Matter >25 mm[3]/500 mL
Standard	> 20 °C above ambient	≥ 21 days	< 1000	< 3	0 fragments	≤ 1 piece
Sample	6.5 °C	> 21 days	ND[1]	ND[1,2]	0 fragments	0 pieces

[1]ND=Not Detected [2]presence-absence/25 g (mL) [3]in any dimension

If there are any questions or comments arising from the submitted report, please feel free to give me a call.

[redacted]

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

% Foreign Matter (by weight) in Compost

DATE: Sept 30/ 2016

EMPTY DISH WEIGHT	260.0	g
INITIAL SAMPLE WEIGHT	1146.0	g
FOREIGN SAMPLE WEIGHT	268.0	g

% FOREIGN $\frac{\text{FOREIGN SAMPLE-DISH WEIGHT}}{\text{INITIAL SAMPLE - DISH WEIGHT}}$ 100

$= \frac{268.0 - 260.0 = 8.0}{1146.0 - 260.0 = 886.0}$

$= .902$ % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

$= 100 - .902 = 99.098$

$=$ **99.1** % ACCEPTABLE

Results on foreign matter for Compost Sample # 20160915

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your C.O.C. #: B 148434

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/09/27
Report #: R4181576
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6J7464
Received: 2016/09/15, 08:31

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride in Soil by Auto. Colourimetry	1	N/A	2016/09/21	ATL SOP 00014	SM 22 4500-Cl- E m
Carbon Nitrogen Ratio by Calculation	1	2016/09/15	2016/09/27		Auto Calc.
Coliform MTM In Solids	1	N/A	2016/09/15	ATL SOP 00067	MFHPB-19/SM22 9221 m
Metals Solids Acid Extr. ICPMS	1	2016/09/19	2016/09/19	ATL SOP 00058	EPA 6020A R1 m
pH (5:1 DI Water Extract)	1	2016/09/19	2016/09/21	ATL SOP 00003	SM 22 4500-H+ B m
Salmonella in Solid (CFIA)	1	N/A	2016/09/15	ATL SOP 00073	MFHPB-20 m
CHN Analysis in Solids (Sub fr Bedford) (1)	1	2016/09/18	2016/09/22		

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bedford to Stericycle, Inc.

Encryption Key

Maxxam
27 Sep 2016 14:10:32 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

This report has been generated and distributed using a secure automated process.
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6J7464
Report Date: 2016/09/27

New Era Technologies Ltd

RESULTS OF ANALYSES OF SOIL

Maxxam ID		DBN859	
Sampling Date		2016/09/15 07:30	
COC Number		B 148434	
	UNITS	20160915 JAR	RDL
Inorganics			
C:N RATIO	n/a	18	N/A
Chloride (Cl)	mg/kg	4700	50
Soluble (5:1) pH	pH	5.01	N/A
Subcontracted Analysis			
Subcontract Parameter	N/A	ATTACHED	N/A

RDL = Reportable Detection Limit
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Maxxam Job #: B6J7464
Report Date: 2016/09/27

New Era Technologies Ltd

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID			DBN8S9	
Sampling Date			2016/09/15 07:30	
COC Number			B 148434	
	UNITS	Criteria A	20160915 JAR	RDL
Metals				
Acid Extractable Aluminum (Al)	mg/kg	-	3100	10
Acid Extractable Antimony (Sb)	mg/kg	-	ND	2.0
Acid Extractable Arsenic (As)	mg/kg	13	4.1	2.0
Acid Extractable Barium (Ba)	mg/kg	-	47	5.0
Acid Extractable Beryllium (Be)	mg/kg	-	ND	2.0
Acid Extractable Bismuth (Bi)	mg/kg	-	ND	2.0
Acid Extractable Boron (B)	mg/kg	-	ND	50
Acid Extractable Cadmium (Cd)	mg/kg	3	ND	0.30
Acid Extractable Chromium (Cr)	mg/kg	210	10	2.0
Acid Extractable Cobalt (Co)	mg/kg	34	1.8	1.0
Acid Extractable Copper (Cu)	mg/kg	400	39	2.0
Acid Extractable Iron (Fe)	mg/kg	-	6700	50
Acid Extractable Lead (Pb)	mg/kg	150	32	0.50
Acid Extractable Lithium (Li)	mg/kg	-	3.0	2.0
Acid Extractable Manganese (Mn)	mg/kg	-	190	2.0
Acid Extractable Mercury (Hg)	mg/kg	0.8	ND	0.10
Acid Extractable Molybdenum (Mo)	mg/kg	5	ND	2.0
Acid Extractable Nickel (Ni)	mg/kg	62	5.8	2.0
Acid Extractable Phosphorus (P)	mg/kg	-	4200	100
Acid Extractable Potassium (K)	mg/kg	-	7200	100
Acid Extractable Rubidium (Rb)	mg/kg	-	8.6	2.0
Acid Extractable Selenium (Se)	mg/kg	2	ND	1.0
Acid Extractable Silver (Ag)	mg/kg	-	ND	0.50
Acid Extractable Strontium (Sr)	mg/kg	-	53	5.0
Acid Extractable Thallium (Tl)	mg/kg	-	ND	0.10
Acid Extractable Tin (Sn)	mg/kg	-	2.4	2.0
Acid Extractable Uranium (U)	mg/kg	-	0.33	0.10
Acid Extractable Vanadium (V)	mg/kg	-	6.4	2.0
Acid Extractable Zinc (Zn)	mg/kg	700	110	5.0

RDL = Reportable Detection Limit
Criteria A: New ERA Requested Compost Criteria
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Maxxam Job #: B6J7464
Report Date: 2016/09/27

New Era Technologies Ltd

MICROBIOLOGY (SOIL)

Maxxam ID			DBN858	
Sampling Date			2016/09/15 07:30	
COC Number			B 148434	
	UNITS	Criteria A	20160915 BAG	RDL
Microbiological				
Salmonella	P-A/25g(mL)	ND	ND	N/A
Fecal coliform	MPN/g	1000	ND	2.0

RDL = Reportable Detection Limit
Criteria A: New ERA Requested Compost Criteria
ND = Not detected
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B6J7464
Report Date: 2016/09/27

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

[redacted]

Robyn Edwards, Bedford Micro Supervisor

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Stericycle
Environmental Solutions
2869 Sandstone Dr. Hatfield Pa. 19440
(tel)215-822-8995 (fax)215-822-1293

September 27, 2016

Avery Withrow
Maxxam Analytics
200 Bluewater Road, Suite 105
Bedford, NS B4B 1 G9

TEL: (90) 420-0203
FAX 902.420.8612

RE: B637464 Order No.: R16090034

Dear Avery Withrow:

Stericycle Environmental Solutions received 1 sample on 9/16/2016 for the analyses presented in the following Certificate of Analytical Results.

The analyses and all data for associated QC met regulatory and/or laboratory specifications. Exceptions will be noted in an enclosed Case Narrative.

The results on the attached Certificate of Analytical results relate only to items tested or to the samples as received by the laboratory. This Certificate of Analytical Results shall not be reproduced, except in full, without the written approval of Stericycle Environmental Solutions, Hatfield, PA.

Please note that any unused portion of the samples will be disposed of 30 days following issuance of report, unless you have requested otherwise.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

[redacted]

Vaughan O'Neill
Project Manager

Sample Receipt Checklist

PSC Analytical Services, Hatfield, PA

Work Order Number: R1609034 Date/Time received: 9/14/16

Client: Morgan Checklist completed by: [redacted]

LIMS data entry completed by: VO 9/16/16 (Initials / Date) Reviewed by: (Initials / Date)

1. Carrier: Client (UPS) FedEx US Mail Airborne Express PSC Courier Other:
2. Cooler Temperature: °C Specify presence of: Ice Blue Ice No Ice
3. Shipping container/cooler received in good condition? (Yes) No
4. Sample containers received intact? (Yes) No
5. Custody seals intact on shipping container/cooler? (Yes) No (N/A)
6. Custody seals intact on sample bottles? (Yes) No (N/A)
7. Chain of custody present? (Yes) No

If No, have second person check sample delivery group also. (Yes) No Init:

8. Chain of custody signed - relinquished AND received? (Yes) No
9. Chain of custody agrees with sample labels? (Yes) No

No extraneous or missing samples; all sampling info (sampler, Air Volumes, dates/times, etc) matches.

10. Samples received in proper containers including headspace requirements? (Yes) No
11. Do all Containers have sample in them? (Yes) No
12. Are all samples single phase? (e.g. no Oil and Water, no solids >=1% in Liquid, etc.) (Yes) No

If No the P.M. needs to have instructions from the client on how to properly analyze the samples.

13. Analysis requirements clearly listed on COC? (Yes) No
14. Sufficient sample volume received for indicated tests? (Yes) No
15. All samples received within holding time/sufficient time to start analysis? (Yes) No
16. Volatile samples received with zero headspace? Yes No (N/A)

Specify: vials (waters) MeOH jars Soil Kit EnCores Other:

17. Water - pH acceptable upon receipt? Yes No (N/A)

Any "No" response must be detailed in the comments section below. If a CAR is not initiated, explain why.

Corrective Action/Resolution (Reference CAR ID #):

Client Notification (Regarding which item #s, Date & time, PSC Employee Initials, Person contacted):

Comments:

PSC USE ONLY
circle all applicable codes PM >24 >4pm SUB COMP UR QA

MAXXAM ANALYTICS
200 Bluewater Road
Bedford, Nova Scotia, B4B 1G9
(902) 420-0203
(902) 420-8612

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Maxxam PM Avery Withrow

SUBCONTRACTING REQUEST FORM R1669034

To: Bedford to Stericycle, Inc.

Job# B6J7464

☐ Yes ☑ No Charge us Rush charge (If rush charges are required to meet due date and Yes box is not checked, please call us)

☐ Yes ☑ No International Sample/BioHazard (If yes, add copy of Movement Cert., heat treat is required prior to disposal)

☐ Yes ☑ No Special Protocol (If yes, Protocol _____)

Sample ID	Matrix	Test(s) Required	Container	Date Sampled	Date Required
DBN859-01R\20160915 JAR	S	CHN Analysis in Solids (Sub fr Bedford)	1-D250	2016/09/15 07:30	2016/09/27

	Temp. 1	Temp. 2	Temp. 3			
Cooler #1				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO
Cooler #2				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO
Cooler #3				Custody Seal Present	YES	NO
				Custody Seal Intact	YES	NO
				Ice Present Upon Receipt	YES	NO

Receiving Maxxam Location: Bedford to Stericycle, Inc. JOB # _____

Relinquished by (Sign) [redacted] (print) PATRICIA CALFORD Date and Time 2016/09/15 13:57

Received by (Sign) [redacted] (print) V. O'Neill Date and Time 9/16/16 11:30

NOTES:

1) Please call us if due date cannot be met. Please reference Sample ID on your report.
2) Include copy of this completed form, Client COC & signed final report to BClientSvcSubContr@maxxam.ca and to AWithrow@maxxam.ca

Reporting Requirements:

National:

Regional:

Shipping Instructions

☐ Ship Immediately (highlight Yellow)
☐ Requires 9am
☐ Requires Sat. Delivery
☑ Regular Ship next available day
☑ Ship Cold
☐ Ship Room Temp
☐ Ship Frozen

Sender (Print) PATRICIA CALFORD Initial [redacted]

Shipping Department Checklist

☑ Correct Shipping location
☑ Correct Sample Ids (Paperwork vs Bottles)
☐ Yes ☐ No Special-Cooler, Ice, Tape-custody seal, Date&Sign
Date Shipped Sept. 15/16 Number of coolers ____
Shipper (Print) _____ Initial [redacted]

REPORT NO.
C16267-70011

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:NEW ERA TECHNOLOGIES
P.O. BOX 51040
ROCKINGHAM RIDGE PO
HALIFAX, NS B3M4R8
CANADA
ATTN:Darren Evans

Phone:902-876-5185
Fax:902-876-5163

FOR:20160915

CERTIFICATE OF ANALYSIS

PAGE: 1

PROJECT NO:
PO#:7964
LAB NUMBER:2677004
SAMPLE ID:20160915

SAMPLE MATRIX:compost
DATE SAMPLED:2016-09-15
DATE RECEIVED:2016-09-23
DATE REPORTED:2016-10-07
DATE PRINTED:2016-10-07

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Dewar (Heating Test)	V*			TMECC.05.08-D
Dewar Temperature Rise	6.5	deg. C	1.0	TMECC 05.08-D

Comment:
Stability Index: V* - Very mature, stable compost.

RECEIVED
OCT 21 2016

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

Results Authorized By: [redacted]

C16267-70011

Haifeng Song, Ph.D., C.Chem. Lab I

Maxxam Analytics International Corporation

200 Bluewater Road, Suite 105, Bedford, Nova Scotia
49 Elizabeth Ave., St John's, NL A1A 1W9
90 Esplanade Sydney, NS B1P 1A1
www.maxxamanalytics.com

Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
E-mail: Clientservicesbedford@maxxamanalytics.com

COC #: B 148434

Page 1 of 1

This column for lab use only:

Client Code

Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
		200006				

Integrity YES NO

Integrity / Checklist by

Labelled by

Location / Bin #

INVOICE INFORMATION:

Company Name: New Eco Technologies

Contact Name: [illegible]

Address: [illegible]

Postal Code B3T 1P2

Email: [redacted]

Ph: [redacted] Fax: [redacted]

REPORT INFORMATION (if differs from invoice):

Company Name:

Contact Name:

Address:

Postal Code

Email:

Ph:

Fax:

PO #

Project # / Phase #

Project Name / Site Location

Quote

Site #

Task Order #

Sampled by

TURNAROUND TIME

Standard ☑

10 day ☐

If RUSH Specify Date:

Pre-schedule rush work

Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions [redacted]

~~Please~~ Please fax & Email
Reg Service Results ASAP

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 Choose Total or Diss Metals; RCAP-MS Choose Total or Diss Metals; Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HClO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	20160915 Raw		Sep15 7:30		Fecal coliform & Salmonella
2	20160915 [illegible]		Sep15 7:30		Ph, CN, NH4, Cl, metals & Hg
3					
4					
5					
6					
7					
8					
9					
10					

2016 SEP 15 8:[illegible]

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Sep 15-16	7:30 Am	[redacted]		

White: Maxxam Yellow: Mail Pink: Client

ATL FCD 00149 / Revision 10

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

February 17, 2017

Aim Environmental Group
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

The test results for the compost sample of November 25, 2016 from the Halifax Ragged Lake Compost Facility are provided in Tables 1–3. Samples were obtained from a batch representing approximately 1000 tonnes of material. A&L Canada Laboratories Inc. tested the sample for metals and pathogens (salmonella and fecal coliform) which were all within the CCME guidelines. The maturity tests consisted of the CCME 1998 germination standard (completed by Bio-Logic Environmental) and the C:N ratio (completed by A&L Laboratories Canada Inc.), as well as the 2005 CCME standard combination of 21 days of curing and the CO_2 respiration rate (also conducted by A&L Laboratories Canada Inc.), which was below detectable limits.

If there are any questions or comments arising from the submitted report, please feel free to give me a call.

[redacted]
Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

Table 1 Summary of Maturity Analyses of Sample from November 25/16

	Respiration Rate mg CO_2-C/g OM[1]/day	Compost Cured	Germination /10 seeds		Growth g/plant		C:N Ratio
			Cress	Radish	Cress	Radish	
Standard	≤ 4	≥ 21 days	>6.98	>7.88	>0.026	>0.111	≤25:1
Sample	BDL[2]	> 21 days	7.00	8.00	0.058	0.243	14:1

[1]Organic Matter [2]Below Detectable Limits

Table 2 Summary of Pathogen and Foreign Matter Analyses of Sample from November 25/16

	Fecal Coliform MPN[1]/g Dry Solids	Salmonella MPN[1]/4 g Dry Solids	Sharp Foreign Matter >3 mm/500 mL	Other Foreign Matter >25 mm^2/500 mL
Standard	< 1000	< 3	0 fragments	≤ 1 piece
Sample	< 3	Negative	0 fragments	0 pieces

[1]Most Probable Number [2]In any dimension

Table 3 Metals Analysis of Sample from November 25/16

Metal	Allowable Limit (mg/kg dry basis)	Sample Analysis (mg/kg dry basis)
Arsenic	13	4.1
Cadmium	3	BDL[5]
Chromium	210	37
Cobalt	34	2.5
Copper	400	63
Lead	150	59
Mercury	0.8	BDL[5]
Molybdenum	5	1.4
Nickel	62	16
Selenium	2	BDL[5]
Zinc	700	121

[5]Below Detectable Limit

% Foreign Matter (by weight) in Compost

DATE: Nov 30/2016

EMPTY DISH WEIGHT	260	g
INITIAL SAMPLE WEIGHT	1468	g
FOREIGN SAMPLE WEIGHT	272	g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT × 100

= 272 - 260 = 12 / 1468 - 260 = 1208

= .993 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 100 - .993 = 99.006

= 99. % ACCEPTABLE

Paul,

Here are the results on Foreign matter for Compost Sample # 20161125

no sharps were found in sample, so nothing to report on this

Thursday

[redacted]

REPORT NO.
C16340-70009

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2

FOR:20161125

ATTN:Darren Evans
Phone: [redacted]
Fax:

CERTIFICATE OF ANALYSIS

PROJECT NO:BALE
PO#:1040-HALIFAX
LAB NUMBER:3407032
SAMPLE ID:20161125

SAMPLE MATRIX:SOLID
DATE SAMPLED:2016-11-25
DATE RECEIVED:2016-12-05
DATE REPORTED:2016-12-09
DATE PRINTED:2017-01-18

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Arsenic	4.05	ug/g	1.00	EPA 3050/6010 (mod) *
Cadmium	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Cobalt	2.45	ug/g	1.00	EPA 3050/6010 (mod)
Chromium	37.35	ug/g	1.00	EPA 3050/6010 (mod)
Copper	63.40	ug/g	1.00	EPA 3050/6010 (mod)*
Mercury	BDL*	ug/g	0.10	EPA 7471 *
Molybdenum	1.4	ug/g	1.0	EPA 3050/6010 (mod)*
Nickel	15.85	ug/g	1.00	EPA 3050/6010 (mod)
Lead	58.90	ug/g	1.00	EPA 3050/6010 (mod) *
Selenium	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Zinc	121.40	ug/g	1.00	EPA 3050/6010 (mod)*

Comment:

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16340-70009

Results Authorized By: [redacted]

Halfeng Song, Ph.D., C.Chem. Lab Director

REPORT NO.
C16340-90002

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2

FOR:20161125

ATTN:Darren Evans
Phone: [redacted]
Fax:

Compost Analysis Proficiency Testing Program

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:
LAB NUMBER:3409023
SAMPLE ID:20161125

SAMPLE MATRIX:SOLID
DATE SAMPLED:2016-11-25
DATE RECEIVED:2016-12-05
DATE REPORTED:2016-12-08
DATE PRINTED:2017-01-04

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Fecal Coliform	<3	MPN/g dry	3	TMECC 07.01
Salmonella spp.	NEGATIVE	P-A/25.0g(ml)	1 CFU	MFLP-75 *

PASSED

RECEIVED
JAN 05 2017

* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16340-90002

Results Authorized By: [redacted]

Keri Wang, Microbiology Manager

REPORT NO.
C16340-70011

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2

FOR:20161125

ATTN:Darren Evans

Phone: [redacted]
Fax:

CERTIFICATE OF ANALYSIS

PROJECT NO:BALE
PO#:1040-HALIFAX
LAB NUMBER:3407034
SAMPLE ID:20161125

SAMPLE MATRIX:SOLID
DATE SAMPLED:2016-11-25
DATE RECEIVED:2016-12-05
DATE REPORTED:2016-12-15
DATE PRINTED:2017-01-04

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Compost Stability Index	8	—		TMECC.05.08-B
Respiration-mgCO2-C/g OM/day	BDL*	mgCO2-C/gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO2-C/g TS/day	BDL*	mgCO2-C/gTS/day	0.01	TMECC.05.08-B

Comment:
Maturity Index: 8 - Inactive, highly matured compost, very well aged, possibly over-aged, like soil; no limitations for usage.

RECEIVED
JAN 04 2017

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16340-70011

Results Authorized By: [redacted]

Haifeng Song, Ph.D., C.Chem. Lab Director

REPORT NO.
C16340-70012

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2

FOR:20161125

ATTN:Darren Evans
Phone: [redacted]
Fax:

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:1040-HALIFAX
LAB NUMBER:3407031
SAMPLE ID:20161125

SAMPLE MATRIX:SOLID
DATE SAMPLED:2016-11-25
DATE RECEIVED:2016-12-05
DATE REPORTED:2016-12-15
DATE PRINTED:2017-01-04

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Dewar (Heating Test)	V			TMECC.05.08-D
Dewar Temperature Rise	1.0	deg. C	1.0	TMECC 05.08-D

Comment:
Stability Index V: Very mature, stable, well-aged compost

RECEIVED
JAN 05 2017

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16340-70012

Results Authorized By: [redacted]

Haifeng Song, Ph.D., C.Chem. Lab Director

REPORT NO. C17019-80001
ACCOUNT NO. 01157

A&L CANADA LABORATORIES INC.

2136 Jetstream Rd, London, ON, N5V 3P5 Tel (519) 457-2575 Fax: (519) 457-2664

TO: AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2

FOR: C16340-70012

ATTN: DARREN EVANS

COMPOST ANALYSIS

LAB NUMBER: 198C02
SAMPLE ID: 3407031

2016 1125 ✓

DATE RECEIVED: 2017-01-19
DATE REPORTED:
DATE PRINTED: 2017-01-25

PARAMETER	ANALYSIS RESULT	POUNDS PER TON
Dry Matter	56.9 %	
Nitrogen (Total)	1.592 %	31.8
NH4-N	2073 ppm	4.1
Phosphorus (Total)	0.2194 %	
Phosphate (P as P205) **	0.5046 %	10.1
Potassium (Total)	0.4259 %	
Potash (K as K2O) **	0.5111 %	10.2
Organic Matter *	40.6 %	
pH	4.96	
Carbon:Nitrogen Ratio (C:N)	14 : 1	
Sulfur	1242.9 ppm	
Bulk Density (As Recieved)	459 kg/m3	
Conductivity (@ 25 deg C)	9.19 ms/cm	
Sodium	0.29 %	5.8
Aluminum	1626.9 ppm	
Boron	7.6 ppm	
Calcium	1.3905 %	27.8

* Organic Matter is reported on an as is basis.
**Available nutrients are reported as total available. Only a portion of these nutrients will be available the year of application.
For information on nitrogen availability, see reverse side of page.

C17019-80001

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

***Bio-Logic** Environmental Systems*
Responsible Waste & Resource Management
18 Erin Drive, Dartmouth, NS, B2W 2B8, (902) 449-6910

February 20, 2017

Aim Environmental Group
61 Evergreen Place
Goodwood, NS
B3T 1P2

Attention: Darren Evans

The test results for the compost sample of December 14, 2016 from the Halifax Ragged Lake Compost Facility are provided in Tables 1–3. Samples were obtained from a batch representing approximately 1000 tonnes of material. A&L Canada Laboratories Inc. tested the sample for metals and pathogens (salmonella and fecal coliform) which were all within the CCME guidelines. The maturity tests consisted of the CCME 1998 germination standard (completed by Bio-Logic Environmental) and the C:N ratio (completed by A&L Laboratories Canada Inc.), as well as the 2005 CCME standard combination of 21 days of curing and the CO_2 respiration rate (also conducted by A&L Laboratories Canada Inc.).

If there are any questions or comments arising from the submitted report, please feel free to give me a call.

Paul Arnold, P.Eng, MBA, PhD
Bio-Logic Environmental Systems

Table 1 Summary of Maturity Analyses of Sample from December 14/16

	Respiration Rate mg CO_2-C/g OM[1]/day	Compost Cured	Germination /10 seeds		Growth g/plant		C:N Ratio
			Cress	Radish	Cress	Radish	
Standard	≤ 4	≥ 21 days	>7.43	>7.43	>0.024	>0.119	≤25:1
Sample	4[2]	> 21 days	7.60	7.50	0.053	0.265	18:1

[1]Organic Matter [2]Rounded to nearest whole number

Table 2 Summary of Pathogen and Foreign Matter Analyses of Sample from December 14/16

	Fecal Coliform MPN[1]/g Dry Solids	Salmonella MPN[1]/4 g Dry Solids	Sharp Foreign Matter >3 mm/500 mL	Other Foreign Matter >25 mm^2/500 mL
Standard	< 1000	< 3	0 fragments	≤ 1 piece
Sample	< 3	Negative	0 fragments	0 pieces

[1]Most Probable Number [2]In any dimension

Table 3 Metals Analysis of Sample from December 14/16

Metal	Allowable Limit (mg/kg dry basis)	Sample Analysis (mg/kg dry basis)
Arsenic	13	3.2
Cadmium	3	BDL[5]
Chromium	210	12
Cobalt	34	1.7
Copper	400	34
Lead	150	22
Mercury	0.8	0.13
Molybdenum	5	1.3
Nickel	62	5.6
Selenium	2	BDL[5]
Zinc	700	91

[5]Below Detectable Limit

% Foreign Matter (by weight) in Compost

DATE: Dec 20/16

EMPTY DISH WEIGHT 260.0 g

INITIAL SAMPLE WEIGHT 1328.0 g

FOREIGN SAMPLE WEIGHT 268.0 g

% FOREIGN = FOREIGN SAMPLE-DISH WEIGHT / INITIAL SAMPLE - DISH WEIGHT 100

= 268.0 - 260.0 = 8.0 / 1328.0 - 260.0 = 1068.0

= .749 % FOREIGN

% ACCEPTABLE 100 -% FOREIGN MATTER

= 100 - .749 = 99.25

= 99.3 % ACCEPTABLE

The results on foreign matter are as follows for compost Sample #20161214

There were no shrimps present, therefore there were none to be measured.

Thank you

[redacted]

REPORT NO.
C16356-70001

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2
CANADA
CANADA
ATTN:Darren Evans
Phone: [redacted]
Fax:

FOR:20161214

Compost Analysis Proficiency Testing Program

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:
LAB NUMBER:3567003
SAMPLE ID:20161214

SAMPLE MATRIX:COMPOST
DATE SAMPLED:2016-12-14
DATE RECEIVED:2016-12-21
DATE REPORTED:2017-01-13
DATE PRINTED:2017-01-18

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Arsenic	3.21	ug/g	1.00	EPA 3050/6010 (mod) *
Cadmium	BDL*	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod*
Cobalt	1.73	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod)
Chromium	11.90	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod*
Copper	34.14	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod)
Mercury	0.13	ug/g	0.10	EPA 7471 *
Molybdenum	1.3	ug/g	1.0	TMECC.04.06;EPA 3050/6010(mod*
Nickel	5.57	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod)
Lead	21.70	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod)
Selenium	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Zinc	90.60	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod)

Comment:

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16356-70001

Results Authorized By: [redacted]

Haifeng Song, Ph.D., C.Chem. Lab Director

REPORT NO.
C16356-90001

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL - HALIFAX
419-1100 SOUTH SERVICE ROAD
STONEY CREEK, ON

ATTN:Darren Evans

Phone:[redacted]
Fax:

Compost Analysis Proficiency

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:
LAB NUMBER:3569003
SAMPLE ID:SOIL 20161214

SAMPLE MATRIX:SOLID
DATE SAMPLED:2016-12-14
DATE RECEIVED:2016-12-21
DATE REPORTED:2016-12-23
DATE PRINTED:2016-12-23

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Fecal Coliform	<3	MPN/g dry	3	TMECC 07.01
Salmonella spp.	NEGATIVE	P-A/25.0g(ml)	1 CFU	MFLP-75 *

RECEIVED
DEC 28 2016

* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16356-90001

Results Authorized By: [redacted]

Keri Wang, Microbiology Manager

REPORT NO.
C16356-70001

ACCOUNT NUMBER
01157

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO:AIM ENVIRONMENTAL GROUP
61 EVERGREEN PLACE
GOODWOOD, NS B3T1P2
CANADA
CANADA
ATTN:Darren Evans
Phone: [redacted]
Fax: [redacted]

FOR:20161214

Compost
Analysis
Proficiency

Testing Program

CERTIFICATE OF ANALYSIS

PROJECT NO:
PO#:
LAB NUMBER:3567004
SAMPLE ID:20161214

SAMPLE MATRIX:COMPOST
DATE SAMPLED:2016-12-14
DATE RECEIVED:2016-12-21
DATE REPORTED:2017-01-13
DATE PRINTED:2017-01-18

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Nitrogen	2.17	%	0.10	AOAC 993:13*
Total Phosphorus (as P205)	0.85	%	0.05	
pH	4.74	—	0.10	TMECC.04.11
Total Potassium (as K2O)	0.93	%	0.05	
Mercury	0.13	ug/g	0.10	EPA 7471 *
Moisture	53.52	%	0.10	TMECC.03.09-A
C:N Ratio	18:1			TMECC.05.02-A
Chloride	2280.00	ug/g	1.00	ISE
Compost Stability Index	6	—		TMECC.05.08-B
Respiration-mgCO2-C/g OM/day	4.20	mgCO2-C/gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO2-C/g TS/day	3.20	mgCO2-C/gTS/day	0.01	TMECC.05.08-B

Comment:
Stability Index: III* - Active compost, material still decomposing.

Results reported on a dry weight basis
* - accredited test
BDL - Below detectable levels
The results of this report relate to the sample submitted and analyzed.

C16356-70001

Results Authorized By: [redacted]

Haifeng Song, Ph.D., C.Chem. Lab Director

AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results.

Attachment 2

Storm Water Pond Effluent Results

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Feb 5-16
Time Sampled: 9:20 Am.

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS — 8.2
BOD - ND
Fecal - ND
Discharge Date: FEB 18/2016

Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148422

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/02/17
Report #: R3896728
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B624395
Received: 2016/02/05, 09:38

Sample Matrix: Adsorbable
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/02/05	2016/02/10	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/02/05	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/02/11	2016/02/12	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
17 Feb 2016 08:37:39 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B624395
Report Date: 2016/02/17

New Era Technologies Ltd

RESULTS OF ANALYSES OF ADSORBABLE

Maxxam ID		BUL851	
Sampling Date		2016/02/05 09:20	
COC Number		B 148422	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	8.2	1.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B624395
Report Date: 2016/02/17

New Era Technologies Ltd

MICROBIOLOGY (ADSORBABLE)

Maxxam ID		BUL851	
Sampling Date		2016/02/05 09:20	
COC Number		B 148422	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B624395
Report Date: 2016/02/17

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

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Maxxam Analytics International Corporation

200 Bluewater Road, Suite 105, Bedford, Nova Scotia B4B 1G9 Tel: 902-420-0203 Fax: 902-420-8612 Toll Free: 1-800-565-7227
49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148422

Page 1 of 1

This column for lab use only:	INVOICE INFORMATION:	REPORT INFORMATION (if differs from invoice):		TURNAROUND TIM
Client Code	Company Name: New Era Technologies	Company Name:	PO #	Standard ☐
Maxxam Job #	Contact Name: Darren Evans	Contact Name:	Project # / Phase #	10 day ☐
	Address: 11 Harrigan Place	Address:	Project Name / Site Location	If RUSH Specify Date
	Lower Sackville NS Postal Code B3T 1P2	Postal Code	Quote	
	Email: [redacted]	Email: .ca	Site #	Pre-schedule rush work
	Ph: [redacted] Fax: [redacted]	Ph: Fax:	Task Order #	Charge for # Jars used but not submitted
			Sampled by	

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			1	1	1	

Integrity: YES NO | Integrity / Checklist by

Labelled by | Location / Bin #

Guideline Requirements / Detection Limits / Special Instructions: Fecal & Results ASAP Bag Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable), NS Fuel Oil Soil Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	TPH Fractionation	PAH's	PAH's with Acridine, Quinoline
1	Pond Discharge			1 L 9:20	Fecal-Coli (Back 2)																	
2	Pond Discharge			9:20 2x500	TSS - BOD.																	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

2016 FEB 5

[redacted]	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
	Feb 5-16	9:20	[redacted] ALYSON WATERS		

White: Maxxam Yellow: Mail Pink: Client

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Feb 29-16
Time Sampled: 1:00 pm

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: Fecal Coli @ ND
TSS @ ND
BOD @ ND
Discharge Date: March 9-2016
Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148423

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/03/08
Report #: R3920559
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B640800
Received: 2016/02/29, 15:13

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/03/02	2016/03/07	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/02/29	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/03/03	2016/03/04	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
08 Mar 2016 10:46:47 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B640800
Report Date: 2016/03/08

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		BXZ407	
Sampling Date		2016/02/29 13:00	
COC Number		B 148423	
	UNITS	**POND DISCHARGE**	**RDL**
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	ND	1.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-9612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148423

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/03/02
Report #: R3914815
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B640800
Received: 2016/02/29, 15:13

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/02/29	ATL SOP 00071	SM 22 9222D

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
02 Mar 2016 16:42:55 -04:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B640800
Report Date: 2016/03/08

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		BXZ407	
Sampling Date		2016/02/29 13:00	
COC Number		B 148423	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam Job #: B640800
Report Date: 2016/03/08

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

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49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148423 Page 1 of 1

This column for lab use only:	
Client Code	
Maxxam Job #	

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			3	1	1	

Integrity YES NO | Integrity / Checklist by
Labelled by | Location / Bin #

INVOICE INFORMATION:

Company Name: Newton Technologies
Contact Name: Darren Evans
Address: 61 Evergreen Place
Lowerwood, NS, Postal Code B3T 1B2
Email: [redacted]
Ph: [redacted]

REPORT INFORMATION (if differs from invoice):

Company Name:
Contact Name:
Address:
Postal Code
Email: n/a
Ph:
Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Fax & Email Result ASAP, Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX/C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline
1	Pond Discharge		Feb 29 1:00 PM	1 × 1L					Fecal Coli (act 4)													
2	Pond Discharge		Feb 29 1:00 PM	2 × 500					TSS + BOD.													
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

2016 FEB 29 15:13

[redacted] 1:00 pm
RECEIVED BY: (Signature/Print) [redacted] Date Time
SARA MASON

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}

Date Sampled: March 18-16.

Time Sampled: 11:00 Am.

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering

Date Pumped: _____

Collection Invoice # _____

Volume Removed _____

Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - ND
BOD - ND
Fecal Coli - ND

Discharge Date: April 6 | 2016

Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Success Through Sciences

Your C.O.C. #: B 148424

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/03/29
Report #: R3944944
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B655078
Received: 2016/03/18, 13:35

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/03/18	2016/03/23	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/03/18	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/03/24	2016/03/29	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
29 Mar 2016 16:08:14 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

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Your C.O.C. #: B 148424

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/03/21
Report #: R3937223
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B655078
Received: 2016/03/18, 13:35

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/03/18	ATL SOP 00071	SM 22 9222D

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
21 Mar 2016 14:03:36

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B655078
Report Date: 2016/03/29

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		CAW295	
Sampling Date		2016/03/18 11:00	
COC Number		B 148424	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.1
Total Suspended Solids	mg/L	ND	1.0

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam Job #: B655078
Report Date: 2016/03/29

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CAW295	
Sampling Date		2016/03/18 11:00	
COC Number		B 148424	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam Job #: B655078
Report Date: 2016/03/29

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

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90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148424 Page 1 of 1

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			1	0	0	

Integrity: YES NO
Integrity / Checklist by
Labelled by
Location / Bin #

INVOICE INFORMATION:
Company Name: New Era Technologies
Contact Name: Darren Evans
Address: Clearview Place
Woodlawn, NS Postal Code B3T 1P2
Email [redacted]
Ph: Fax:

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code
Email:
Ph: Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Just ; Email Results ASAP
Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge		March 18 11:00 AM	1 liter	Fecal-coli (Cat 4)
2	Pond Discharge		March 18 11:00 AM	2x500	TSS B.O.D.
3					
4					
5					
6					
7					
8					
9					
10					

2018 MAR 18 13:3[illegible]

RELINQUISHED BY: (Signature/Print)	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	12:00 AM	[redacted] Sara Mason		

White: Maxxam Yellow: Mail Pink: Client

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: April 12 | 2016
Time Sampled: 12:45 pm

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: Fecal Coli - ND
TSS - ND
BOD - ND
Discharge Date: April 22 | 2016
Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B671738
Report Date: 2016/04/19

New Era Technologies Ltd
Sampler Initials: DE

RESULTS OF ANALYSES OF WATER

Maxxam ID		CED848	
Sampling Date		2016/04/12 12:45	
COC Number		B 148425	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	ND	1.0

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148425

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/04/19
Report #: R3965971
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B671738
Received: 2016/04/12, 14:01

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/04/13	2016/04/18	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/04/12	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/04/19	2016/04/19	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
19 Apr 2016 16:34:05 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Success Through Sciences

Your C.O.C. #: B 148425

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/04/14
Report #: R3960772
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B671738
Received: 2016/04/12, 14:01

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/04/12	ATL SOP 00071	SM 22 9222D

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
14 Apr 2016 14:43:12 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B671738
Report Date: 2016/04/19

New Era Technologies Ltd
Sampler Initials: DE

MICROBIOLOGY (WATER)

Maxxam ID		CED848	
Sampling Date		2016/04/12 12:45	
COC Number		B 148425	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B671738
Report Date: 2016/04/19

New Era Technologies Ltd
Sampler Initials: DE

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]
Andrew VanWychen, Bedford Micro

[redacted]
Mike MacGillivray, Scientific Specialist (Inorganics)

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90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148425 Page 1 of 1

This column for lab use only:
Client Code:
Maxxam Job #:

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			1	1	4	

Integrity YES NO — Integrity / Checklist by:
Labelled by: — Location / Bin #:

INVOICE INFORMATION:
Company Name: New Era Tech
Contact Name: DARREN
Address: 61 Evergreen Place
Woodwood N.S Postal Code: B2T 1P2
Email: newera@ns.sympatico.ca
Ph: [redacted] Fax: [redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code:
Email:
Ph: Fax:

PO #:
Project # / Phase #:
Project Name / Site Location:
Quote:
Site #:
Task Order #:
Sampled by: DE

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions:
Reg Service
email results ASAP
Thanks

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses requested
1	Pond Discharge		April 8 12:45	x 100 mL	Fecal Coli (Act #)
2					
3	Pond Discharge		April 8 12:45	2 x 500 mL	TSS + BOD
4					
5					
6					
7					
8					
9					
10					

[redacted] Date: April 12/2016 Time:

RECEIVED BY: (Signature/Print) [redacted] SARA NAION Date: Time:

2016 APR 12 14:01

: Maxx Mail

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: May 9-16
Time Sampled: 8:30 am.

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS – 3.6
BOD – ND
Fecal Coli – ND

Discharge Date: May 18 - 2016

Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: B 148427

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/05/17
Report #: R3995177
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B692448
Received: 2016/05/09, 09:41

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/05/11	2016/05/16	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/05/09	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/05/16	2016/05/16	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
17 May 2016 12:13:07 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B692448
Report Date: 2016/05/17

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		CHY744	
Sampling Date		2016/05/09 08:30	
COC Number		B 148427	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	3.6	1.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B692448
Report Date: 2016/05/17

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CHY744	
Sampling Date		2016/05/09 08:30	
COC Number		B 148427	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	100
RDL = Reportable Detection Limit ND = Not detected			

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B692448
Report Date: 2016/05/17

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Eric Dearman, Scientific Specialist

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Maxxam Analytics International Corporation

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49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148427 Page 1 of 1

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			3	3	3	

Integrity YES NO | Integrity / Checklist by
Labelled by | Location / Bin #

INVOICE INFORMATION:
Company Name: Newton Technologies
Contact Name: Darren Evans
Address: Lavergreen Place
Bedford, NS Postal Code B3T 1P2
Email: [redacted]
Ph: [redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code
Email:
Ph: Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Fax & Email Results
ASAP Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 Choose Total or Diss Metals; RCAP-MS Choose Total or Diss Metals; Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge		May 9 16 8:30 am	1x1L	Fecal Coli (Ack?)
2	Pond Discharge		May 9 16 8:30 am	2x250	TSS - BOD
3					
4					
5					
6					
7					
8					
9					
10					

2016 MAY 9 9:4

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	May 9 16	8:30 am	[redacted]	[illegible]	[illegible]

White: Maxxam Yellow : Mail Pink: Client ATL FCD 00149 / Revision 10

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}

Date Sampled: May 31-16

Time Sampled: 9:20 Am.

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering

Date Pumped: _____

Collection Invoice # _____

Volume Removed _____

Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - ND
BOD - 3.8
Fecal Coli - ND

Discharge Date: June 9/2016

Operators Signature: [redacted]

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Success Through Science®

Your C.O.C. #: B 148429

Attention:Darren Evans

New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/06/08
Report #: R4019929
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A9164
Received: 2016/05/31, 09:43

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/06/01	2016/06/06	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/05/31	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/06/07	2016/06/08	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
08 Jun 2016 16:58:47 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6A9164
Report Date: 2016/06/08

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		CLE013	
Sampling Date		2016/05/31 09:20	
COC Number		B 148429	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	3.8	2.4
Total Suspended Solids	mg/L	ND	1.0

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam Job #: B6A9164
Report Date: 2016/06/08

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CLE013	
Sampling Date		2016/05/31 09:20	
COC Number		B 148429	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

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Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: July 11 - 2016
Time Sampled: 10:00 am

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - ND
BOD - ND
Fecal Coli - ND
Discharge Date: July 22/16
Operators Signature [redacted]

Maxxam Job #: B6E2058
Report Date: 2016/07/13

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CRH428	
Sampling Date		2016/07/11 10:00	
COC Number		B 148432	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10

RDL = Reportable Detection Limit
ND = Not detected

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Maxxam Job #: B6E2058
Report Date: 2016/07/20

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Andrew VanWychen, Bedford Micro

[redacted]

Kevin MacDonald, Inorganics Supervisor

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90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148432

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			3	2	3	

Integrity YES NO | Integrity / Checklist by
Labelled by | Location / Bin #

INVOICE INFORMATION:
Company Name: Newfoundland Technology
Contact Name: Dueen Evans
Address: 61 evergreen Place, Goodwood NS Postal Code B3T 1P2
Email: [redacted]
Ph: [redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code
Email: .ca
Ph:
Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Fax & Email Result
ASAP Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge		July 11 - 10:20	1 1 1 ct	Fecal-Coli (cut #)
2	Pond Discharge		July 4/11 10:00	2 1 5 ort	TSS - BOD
3					
4					
5					
6					
7					
8					
9					
10					

Relinquished by	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	July 11-16	10:00 am	[redacted] Kim Bruce	2016 JUL 11	11:32

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: July 27-16
Time Sampled: 01:10 pm

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - ND
BOD : ND
Fecal Coli - 30
Discharge Date: Aug 8/16
Operators Signature: [redacted]

Little in Pond, Dried up from summer and no rain. not much to let go.

Maxxam
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Your C.O.C. #: B 148433

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/08/04
Report #: R4091430
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6F7056
Received: 2016/07/27, 13:45

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/07/28	2016/08/02	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/07/27	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/07/28	2016/07/29	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
04 Aug 2016 08:02:16 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

==========

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Maxxam Job #: B6F7056
Report Date: 2016/08/04

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		CTX428	
Sampling Date		2016/07/27 13:10	
COC Number		B 148433	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	ND	2.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Your C.O.C. #: B 148433

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/07/28
Report #: R4085203
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B6F7056
Received: 2016/07/27, 13:45

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/07/27	ATL SOP 00071	SM 22 9222D

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
28 Jul 2016 17:17:43 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6F7056
Report Date: 2016/08/04

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CTX428	
Sampling Date		2016/07/27 13:10	
COC Number		B 148433	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	30	10
RDL = Reportable Detection Limit			

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B6F7056
Report Date: 2016/08/04

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Kevin MacDonald, Inorganics Supervisor

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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Maxxam Analytics International Corporation

200 Bluewater Road, Suite 105, Bedford, Nova Scotia B4B 1G9 Tel: 902-420-0203 Fax: 902-420-8612 Toll Free: 1-800-565-7227
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90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148433 Page 1 of 1

This column for lab use only:
Client Code
Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			10	12	11	

Integrity: YES NO
Integrity / Checklist by
Labelled by
Location / Bin #

INVOICE INFORMATION:
Company Name: Newton Technologies
Contact Name: Darren Evans
Address: [illegible] Place, [illegible] NS
Postal Code: B3S 1P2
Email: [redacted]
Ph: [redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code
Email:
Ph:
Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Fax & Email Result's ASAP - Reg: Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline
1	Pond Discharge		July 27 1:10	1x100										Fecal Coli (Fecal ?)								
2	Pond Discharge		July 27 1:10	2x500										TSS - BOD								
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

	Date	Time		Date	Time
[redacted]	July 27-16	1:12 pm	[redacted] Alison Walters	2016 JUL 27	13:45

White: Maxxam Yellow: Mail Pink: Client

ATL FCD 00149 / Revision 10

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}

Date Sampled: Aug 18 - 16

Time Sampled: 2:45 pm

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering

Date Pumped: _____

Collection Invoice # _____

Volume Removed _____

Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS @ Nd
BOD @ Nd
FecalColi @ ND

Discharge Date: Aug 31/ 2016

Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your C.O.C. #: B 148436

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/08/30
Report #: R4146629
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6H5411
Received: 2016/08/18, 15:54

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/08/19	2016/08/24	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/08/18	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/08/25	2016/08/26	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
30 Aug 2016 12:12:58 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6H5411
Report Date: 2016/08/30

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		CXH675	
Sampling Date		2016/08/18 14:45	
COC Number		B 148436	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	5.0
Total Suspended Solids	mg/L	ND	1.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

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Your C.O.C. #: B 148436

Attention:Darren Evans
New Era Technologies Ltd
61 Evergreen Pl
Goodwood, NS
B3T 1P2

Report Date: 2016/08/22
Report #: R4124158
Version: 1 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

MAXXAM JOB #: B6H5411
Received: 2016/08/18, 15:54

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/08/18	ATL SOP 00071	SM 22 9222D

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Maxxam
22 Aug 2016 11:33:51 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6H5411
Report Date: 2016/08/22

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		CXH675	
Sampling Date		2016/08/18 14:45	
COC Number		B 148436	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	ND	10
RDL = Reportable Detection Limit ND = Not detected			

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Maxxam Job #: B6H5411
Report Date: 2016/08/30

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Eric Dearman, Scientific Specialist

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148436

Page 1 of 1

This column for lab use only:

Client Code

Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			7	6	6	

Integrity YES NO | Integrity / Checklist by

Labelled by | Location / Bin #

INVOICE INFORMATION:

Company Name: Maritime Technologies
Contact Name: Darren [illegible]
Address: [illegible] Place
[illegible] NS Postal Code B3T 1B2
Em[redacted]

REPORT INFORMATION (if differs from Invoice):

Company Name:
Contact Name:
Address:
Postal Code
Email:
Ph:
Fax:

PO #
Project # / Phase #
Project Name / Site Location
Quote
Site #
Task Order #
Sampled by

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Pls E-mail Results
ASAP Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater (Surface circled)

Analyses columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 Choose Total or Diss Metals; RCAP-MS Choose Total or Diss Metals; Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge		Aug 18 2:45	1 [illegible]	Fecal Coli (Act #) TSS - BOD
2	Pond Discharge		Aug 18 2:45	2 15 cv	
3					
4					
5					
6					
7					
8					
9					
10					

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Aug 18-16	2:45	[redacted] MCOMEAU	2016 AUG 18	15:54

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: _____
Time Sampled: _____

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: _____
_____
_____
Discharge Date: _____

Operators Signature: _____

Sept 20, 2016

Pumped approx 700 gallons to fiberglass holding tank for furture water purposes with bio filteres via Honda water pump

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Sept 28/2016
Time Sampled: 10:00 am

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - 2.0
BOD - ND
Fecal Coli - 190

Discharge Date: Oct 11/2016

Operators Signature: [redacted]

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Your C.O.C. #: B 148438

Attention:Darren Evans
New Era Technologies Ltd
PO Box 51040
Rockingham Ridge PO
Halifax, NS
B3M 4R8

Report Date: 2016/10/07
Report #: R4194104
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6K8155
Received: 2016/09/28, 10:21

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/09/28	2016/10/03	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/09/28	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/10/03	2016/10/07	ATL SOP 00007	SM 22 2540D m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key [redacted]
Rachael Mansfield
07 Oct 2016 13:59:13 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6K8155
Report Date: 2016/10/07

New Era Technologies Ltd

RESULTS OF ANALYSES OF WATER

Maxxam ID		DDN020	
Sampling Date		2016/09/28 10:05	
COC Number		B 148438	
	UNITS	POND DISCHARGE	RDL
Inorganics			
Carbonaceous BOD	mg/L	ND	2.0
Total Suspended Solids	mg/L	2.0	1.0

RDL = Reportable Detection Limit
ND = Not detected

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam Job #: B6K8155
Report Date: 2016/10/07

New Era Technologies Ltd

MICROBIOLOGY (WATER)

Maxxam ID		DDN020	
Sampling Date		2016/09/28 10:05	
COC Number		B 148438	
	UNITS	POND DISCHARGE	RDL
Microbiological			
Fecal coliform	CFU/100mL	190	10
RDL = Reportable Detection Limit			

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Maxxam Job #: B6K8155
Report Date: 2016/10/07

New Era Technologies Ltd

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Kevin MacDonald, Inorganics Supervisor

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148438 Page 1 of 1

This column for lab use only:
Client Code:
Maxxam Job #:

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			6	6	6	

Integrity: YES NO
Integrity / Checklist by:
Labelled by:
Location / Bin #:

INVOICE INFORMATION:
Company Name: New Eco Technologies
Contact Name: Dustin Evans
Address: Wintergreen Place
Lantz?wood NS Postal Code B3T 1P2
Em[redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code:
Email:
Ph: Fax:

PO #:
Project # / Phase #:
Project Name / Site Location:
Quote:
Site #:
Task Order #:
Sampled by:

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions
Fax & Email Results ASAP Day Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater (Surface circled)

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge		5-0929 10:00	1x1L	Fecal Coli (Coliforms)
2	Pond Discharge		5-0928 10:00	2x500	TSS - BOD
3					
4					
5					
6					
7					
8					
9					
10					

2016 SEP 28 10:21

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Sep 28-16	10:00 am	[redacted]		

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Oct 24/2016
Time Sampled: 11:00 am

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - ND
BOD - ND
Fecal Coli - 19
Discharge Date: Nov 2-/2016

Operators Signature: [redacted]

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Your C.O.C. #: B 148448

Attention:Darren Evans
AIM Environmental Group
1100 South Service Road
Suite 419
Stoney Creek, ON
CANADA L8E 0C5

Report Date: 2016/10/31
Report #: R4230050
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6M9022
Received: 2016/10/24, 11:48

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/10/26	2016/10/31	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/10/24	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/10/25	2016/10/27	ATL SOP 00007	SM 22 2540D m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

[redacted]

Rachael Mansfield
Customer Service - Bedford
31 Oct 2016 17:04:37 -03:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6M9022
Report Date: 2016/10/31

AIM Environmental Group

RESULTS OF ANALYSES OF WATER

Maxxam ID		DHM251		
Sampling Date		2016/10/24 10:00		
COC Number		B 148448		
	UNITS	POND DISCHARGE	RDL	QC Batch
Inorganics				
Carbonaceous BOD	mg/L	ND	5.0	4716295
Total Suspended Solids	mg/L	ND	1.0	4716467

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B6M9022
Report Date: 2016/10/31

AIM Environmental Group

MICROBIOLOGY (WATER)

Maxxam ID		DHM251		
Sampling Date		2016/10/24 10:00		
COC Number		B 148448		
	UNITS	POND DISCHARGE	RDL	QC Batch
Microbiological				
Fecal coliform	CFU/100mL	10	10	4715599

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B6M9022
Report Date: 2016/10/31

AIM Environmental Group

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Eric Dearman, Scientific Specialist

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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Maxxam Analytics International Corporation

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49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148448

Page 1 of 1

This column for lab use only:

Client Code

Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			3	5	7	

Integrity: YES NO

Integrity / Checklist by

Labelled by

Location / Bin #

INVOICE INFORMATION:

Company Name: Aim ENVIRONMENTAL GROUP

Contact Name: Darren Evan

Address: 61 mur green Place

[illegible] Postal Code B3T 1P2

Em[redacted]Ph:

REPORT INFORMATION (if differs from invoice):

Company Name:

Contact Name:

Address:

Postal Code

Email:

Ph:

Fax:

PO #

Project # / Phase #

Project Name / Site Location

Quote

Site #

Task Order #

Sampled by

TURNAROUND TIME

Standard ☐

10 day ☐

If RUSH Specify Date:

Pre-schedule rush work

Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions

Fax & Email Results

ASAP Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline					
1	Pond Discharge		Oct 24 10:30	1 L										Fecal Coli (n= ?)													
2	Pond Discharge		Oct 24 10:30	2.5 a										TSS - BOD													
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											

2011 OCT 24 11:44

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Oct 24/11	10:30	[redacted] ANSON WATERS		

White: Maxxam Yellow: Mail Pink: Client

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Nov 17-16
Time Sampled: 230 pm.

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS @ ND
BOD @ ND
Fecal Coli @ ND
Discharge Date: Nov 25/16
Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your C.O.C. #: B148439

Attention:Darren Evans

AIM Environmental Group
New Era Technologies
61 Evergreen Place
Goodwood, NS
Canada B3T 1P2

Report Date: 2016/11/24
Report #: R4259502
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6P0487
Received: 2016/11/17, 14:55

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/11/18	2016/11/23	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/11/17	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/11/18	2016/11/23	ATL SOP 00007	SM 22 2540D m

Remarks:

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Rachael Mansfield
Customer Service - Bedford
24 Nov 2016 16:42:41

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6P0487
Report Date: 2016/11/24

AIM Environmental Group

RESULTS OF ANALYSES OF WATER

Maxxam ID		DLV505		
Sampling Date		2016/11/17 14:30		
COC Number		B148439		
	UNITS	POND DISCHARGE	RDL	QC Batch
Inorganics				
Carbonaceous BOD	mg/L	ND	5.0	4754161
Total Suspended Solids	mg/L	ND	1.0	4754346

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B6P0487
Report Date: 2016/11/24

AIM Environmental Group

MICROBIOLOGY (WATER)

Maxxam ID		DLV505		
Sampling Date		2016/11/17 14:30		
COC Number		B148439		
	UNITS	POND DISCHARGE	RDL	QC Batch
Microbiological				
Fecal coliform	CFU/100mL	ND	10	4753195

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B6P0487
Report Date: 2016/11/24

AIM Environmental Group

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Eric Dearman, Scientific Specialist

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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Maxxam Analytics International Corporation

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49 Elizabeth Ave., St John's, NL A1A 1W9 Tel: 709-754-0203 Fax: 709-754-8612 Toll Free: 1-888-492-7227
90 Esplanade Sydney, NS B1P 1A1 Tel: 902-567-1255 Fax: 902-539-6504 Toll Free: 1-888-535-7770
www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148439

Page \ of \

This column for lab use only:

Client Code

Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			755			

Integrity: YES NO

Integrity / Checklist by

Labelled by

Location / Bin #

INVOICE INFORMATION:

Company Name: Aim Environmental group

Contact Name: Darren Evans

Address: Wavergreen Lane Fordwood

Postal Code: B3T 1P2

Email: [redacted]

Ph: [redacted]

REPORT INFORMATION (If differs from invoice):

Company Name:

Contact Name:

Address:

Postal Code

Email:

Ph: Fax:

PO #

Project # / Phase #

Project Name / Site Location

Quote

Site #

Task Order #

Sampled by

TURNAROUND TIME

Standard ☐

10 day ☐

If RUSH Specify Date:

Pre-schedule rush work

Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions

fax & Email Results

ASAP Day Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/ Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Field Filtered & Preserved	Lab Filtration Required	RCAP-30 Choose Total or Diss Metals	RCAP-MS Choose Total or Diss Metals	Metals Water: Total Digest (Default Method) for well water, surface water	Metals Water: Dissolved for ground water	Metals Water: Mercury	Metals Soil: Metals & Mercury Default Available Digest Method	Metals Soil: Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4)	Metals Soil: Mercury Low level by Cold Vapour AA	Metals Soil: Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural	Metals Soil: Hot Water soluble Boron (required for CCME Agricultural)	Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32)	Hydrocarbons: Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32	Hydrocarbons: NB Potable Water BTEX, VPH, Low level T.E.H.	Hydrocarbons: TPH Fractionation	Hydrocarbons: PAH's	Hydrocarbons: PAH's with Acridine, Quinoline
1	Pond Discharge		Nov 17 2:30	1x1 L					Fecal - Coli (set #)													
2	Pond Discharge		Nov 17 2:30	2x 250					TSS BOD.													
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

2016 NOV 17 14:5

RELINQUISHED BY	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Nov 17/16	2:30 pm	[redacted] MARYANN COMEAU		

White: Maxxam Yellow: Mail Pink: Client

ATL FCD 00149 / Revision 10

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}

Date Sampled: Dec 2-16

Time Sampled: 11:05 am

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering

Date Pumped: _____

Collection Invoice # _____

Volume Removed _____

Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: TSS - Nd
BOD - Nd
Fecal Coli - Nd

Discharge Date: Dec 12/ 2016

Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Your C.O.C. #: N/A

Attention:Darren Evans
AIM Environmental Group
New Era Technologies
61 Evergreen Place
Goodwood, NS
Canada B3T 1P2

Report Date: 2016/12/08
Report #: R4279403
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6Q2983
Received: 2016/12/02, 11:53

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/12/02	2016/12/07	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/12/02	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/12/06	2016/12/08	ATL SOP 00007	SM 22 2540D m

Remarks:

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key [redacted]
Rachael Mansfield
Customer Service - Bedford
08 Dec 2016 14:57:49

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

==========

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q2983
Report Date: 2016/12/08

AIM Environmental Group

RESULTS OF ANALYSES OF WATER

Maxxam ID		DOH024		
Sampling Date		2016/12/02 11:15		
COC Number		N/A		
	UNITS	POND DISCHARGE	RDL	QC Batch
Inorganics				
Carbonaceous BOD	mg/L	ND	5.0	4775533
Total Suspended Solids	mg/L	ND	1.0	4780549

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q2983
Report Date: 2016/12/08

AIM Environmental Group

MICROBIOLOGY (WATER)

Maxxam ID		DOH024		
Sampling Date		2016/12/02 11:15		
COC Number		N/A		
	UNITS	POND DISCHARGE	RDL	QC Batch
Microbiological				
Fecal coliform	CFU/100mL	ND	10	4776495

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B6Q2983
Report Date: 2016/12/08

AIM Environmental Group

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

[redacted]

Mike MacGillivray, Scientific Specialist (Inorganics)

[redacted]

Robyn Edwards, Bedford Micro Supervisor

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MAXXAM Chain of Custody Record

COC #: B 148442

Page 1 of 1

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90 Esplanade Sydney, NS B1P 1A1 — Tel: 902-567-1255 — Fax: 902-539-6504 — Toll Free: 1-888-535-7770
www.maxxamanalytics.com — E-mail: Clientservicesbedford@maxxamanalytics.com

Maxxam use only: Maxxam Job #

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			4	3	3	

Integrity YES NO — Integrity / Checklist by — Labelled by — Location / Bin #

INVOICE INFORMATION:
Company Name: Ain Environmental group
Contact Name: Darren Evans
Address: 61 ... [illegible]
Postal Code: B3T 1P2
Em[redacted]

REPORT INFORMATION (if differs from invoice):
Company Name:
Contact Name:
Address:
Postal Code:
Email:
Ph:
Fax:

PO #:
Project # / Phase #:
Project Name / Site Location:
Quote:
Site #:
Task Order #:
Sampled by:

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Instructions: fax & Email Results ASAP. Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 (Choose Total or Diss Metals); RCAP-MS (Choose Total or Diss Metals); Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses
1	Pond Discharge			1 litre	Fecal-Coli-(Lab)
2	Pond Discharge			2 x 250	TSS - BOD
3					
4					
5					
6					
7					
8					
9					
10					

2016 DEC 2 11:53

Relinquished by	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Dec 2-16	11:15 am	[redacted]		

Pink: Client

ATL FCD 00149 / Revision 10

Storm Water & Pond Discharge Report

SAMPLES TAKEN/ANALYZED(Maxxam Analytical)

Pond Water {TSS, BOD, FECAL COLIFORM}
Date Sampled: Dec 26-16
Time Sampled: 12:20. pm

ACTIONS TAKEN:

(1)Pumped by: Ennis Trucking
Disposed at SF Rendering
Date Pumped: _____
Collection Invoice # _____
Volume Removed _____
Disposal Slip # _____

(2)Discharged based on criteria set by DOE
(TSS-50mg/l, BOD-5mg/l, Fecal Coliform 200/100mls)

Sample Results: BOD — NIL
TSS — NIL
FECAL COLI — NIL
Discharge Date: N/A FROZEN
Operators Signature: [redacted]

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your C.O.C. #: B 148441

Attention:Dennis Perlotto
AIM Environmental Group
1100 South Service Road
Suite 419
Stoney Creek, ON
CANADA L8E 0C5

Report Date: 2017/01/03
Report #: R4309291
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B650151
Received: 2016/12/28, 13:21

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonaceous BOD	1	2016/12/28	2017/01/03	ATL SOP 00041	SM 22 5210B m
Fecal coliform in water (CFU/100 mL)	1	N/A	2016/12/28	ATL SOP 00071	SM 22 9222D
Total Suspended Solids	1	2016/12/29	2016/12/30	ATL SOP 00007	SM 22 2540D m

Remarks:

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your C.O.C. #: B 148441

Attention:Dennis Perlotto
AIM Environmental Group
1100 South Service Road
Suite 419
Stoney Creek, ON
CANADA L8E 0C5

Report Date: 2017/01/03
Report #: R4309291
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B650151
Received: 2016/12/28, 13:21

Encryption Key

Maxxam
03 Jan 2017 18:13:53

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

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Maxxam Job #: B6S0151
Report Date: 2017/01/03

AIM Environmental Group

RESULTS OF ANALYSES OF WATER

Maxxam ID		DRL949		
Sampling Date		2016/12/28 12:20		
COC Number		B 148441		
	UNITS	POND DISCHARGE	RDL	QC Batch
Inorganics				
Carbonaceous BOD	mg/L	ND	5.0	4807824
Total Suspended Solids	mg/L	ND	1.0	4808420

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B6S0151
Report Date: 2017/01/03

AIM Environmental Group

MICROBIOLOGY (WATER)

Maxxam ID		DRL949		
Sampling Date		2016/12/28 12:20		
COC Number		B 148441		
	UNITS	POND DISCHARGE	RDL	QC Batch
Microbiological				
Fecal coliform	CFU/100mL	ND	100	4807742

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
ND = Not detected

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Maxxam Job #: B650151
Report Date: 2017/01/03

AIM Environmental Group

VALIDATION SIGNATURE PAGE

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Eric Dearman, Scientific Specialist

Robyn Edwards, Bedford Micro Supervisor

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Maxxam Analytics International Corporation

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www.maxxamanalytics.com E-mail: Clientservicesbedford@maxxamanalytics.com

MAXXAM Chain of Custody Record

COC #: B 148441

Page __ of __

This column for lab use only:

Client Code:

Maxxam Job #:

Cooler ID	Seal Present	Seal Intact	Temp 1	Temp 2	Temp 3	Average Temp
			0	1	1	

Integrity: YES NO

Integrity / Checklist by:

Labelled by:

Location / Bin #:

INVOICE INFORMATION:

Company Name: [illegible] Environmental Group
Contact Name: [illegible]
Address: [illegible] Place, [illegible]
Postal Code: B3T 1P2
Em[redacted]
Ph:

REPORT INFORMATION (if differs from invoice):

Company Name:
Contact Name:
Address:
Postal Code:
Email: [illegible]
Ph:
Fax:

PO #:
Project # / Phase #:
Project Name / Site Location:
Quote:
Site #:
Task Order #:
Sampled by:

TURNAROUND TIME
Standard ☐
10 day ☐
If RUSH Specify Date:
Pre-schedule rush work
Charge for # Jars used but not submitted

Guideline Requirements / Detection Limits / Special Instructions:
Fax & Email Results
ASAP
Reg Service

*Specify Matrix: Surface/Salt/Ground/Tapwater/Sewage/Effluent/Potable/NonPotable/Tissue/Soil/Sludge/Metal/Seawater

Analysis columns: Field Filtered & Preserved; Lab Filtration Required; RCAP-30 Choose Total or Diss Metals; RCAP-MS Choose Total or Diss Metals; Metals Water: Total Digest (Default Method) for well water, surface water; Dissolved for ground water; Mercury; Metals Soil: Metals & Mercury Default Available Digest Method; Metals Total Digest - for Ocean sediments (HNO3/HF/HCLO4); Mercury Low level by Cold Vapour AA; Selenium (low level) Req'd for CCME Residential, Parklands, Agricultural; Hot Water soluble Boron (required for CCME Agricultural); Hydrocarbons: RBCA Hydrocarbons (BTEX, C6-C32); Hydrocarbons Soil (Potable), NS Fuel Oil Spill Policy Low Level BTEX, C6-C32; NB Potable Water BTEX, VPH, Low level T.E.H.; TPH Fractionation; PAH's; PAH's with Acridine, Quinoline

#	Field Sample Identification	Matrix*	Date/Time Sampled	# & type of bottles	Analyses requested
1	Pond Discharge		Dec 26 / 12:20pm	1x100	Fecal Coli – (Lab 4)
2	Pond Discharge		Dec 26 / 12:20pm	2x500	TSS – BOD
3					
4					
5					
6					
7					
8					
9					
10					

RELINQUISHED BY: (Signature/Print)	Date	Time	RECEIVED BY: (Signature/Print)	Date	Time
[redacted]	Dec 28/16	12:20 P	[redacted] ERICA CHAFE		

2016 DEC 28 13:21

White: Maxxam Yellow: Mail Pink: Client

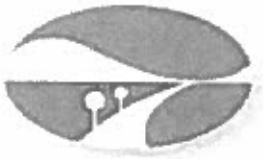
ATL FCD 00149 / Revision 10

AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results

Attachment 3

Odour Complaints



AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results.

Attachment 4

Englobe
Annual Report

&

Holding Tank Waste Water Sampling
Monitoring Well Sampling
Surface Water Sampling
Results

Englobe
Soils Materials Environment

AIM Environmental

Groundwater and Surface Water Monitoring & Testing, December 2016
Ragged Lake Compost Facility, Goodwood, NS

Annual Report

Date: January 9, 2017
Ref. No: P-0011638-0-01-201

Englobe

AIM Environmental

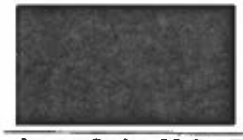
Groundwater and Surface Water Monitoring & Testing December 2016 Ragged Lake Compost Facility, Goodwood, NS

Annual Report | P-0011638-0-01-201

Prepared by:

Lisa Ladouceur, CET
Technologist, Environmental Engineering

Approved by :



Aven Cole, M.Sc.E., P.Eng.
Project Engineer, Environmental Engineering

97 Troop Avenue, Dartmouth (Nova Scotia) Canada B3B 2A7 – 902.468.6486 | F 902.468.4919 – dartmouth@englobecorp.ca

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Property and Confidentiality

REVISION AND PUBLICATION REGISTER

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1 INTRODUCTION

At your request and in accordance with your Water Sampling Protocol and your *Amendment* to the *Approval to Operate a Composting Facility* dated May 30, 2003, Englobe has conducted a water monitoring event involving the sampling and testing of groundwater monitor wells. This report provides the methodology and results achieved from the most recent quarterly monitoring program and a summary of the annual results.

2 BACKGROUND

Based on the Nova Scotia Department of Environment Composting Facility Guidelines, groundwater and surface water monitoring is a requirement to observe potential impacts from daily composting activities. Eleven (11) groundwater monitoring wells, labeled MW1 (abandoned), MW1R, MW2, MW3, MW4, MW5, MW6, MW7S, MW7D, MW8 and MW9 were installed within proximity to the composting facility to provide groundwater access and in turn to allow for chemical analysis. In addition, surface water locations SW5, SW7, SW8 and SW9 are monitored semi-annually. Based on your *Renewal to the Approval to Operate a Composting Facility* (issued by Nova Scotia Environment (NSE)), only seven (7) of the eleven (11) installed monitor wells and three (3) surface water sampling locations were proposed for continual monitoring; MW1R, MW2, MW3, MW6, MW7S, MW7D and MW9 (quarterly), and SW5, SW7 and SW8 (semi-annually). SW9 was historically dry or frozen and did not have adequate water for sampling. Therefore, the location was removed from the program in December 2011. The holding tank (biowater) was monitored quarterly until that sampling location was removed from the program. The liner sump is checked quarterly but is usually dry. AIM Environmental Group (AIM) employees conduct storm water pond monitoring.

3 METHODOLOGY

On December 6, 2016, Englobe personnel monitored the groundwater wells for static water level, conductivity, temperature, and pH, then purged a minimum of three pore volumes, and sampled for laboratory testing. Static water levels were measured using a Solinst electronic water level tape. Temperature, pH and conductivity were measured using Oakton Instruments Waterproof EcoTestr 2 pH and ECTestr11+ Series field instruments. Each monitor well is equipped with dedicated Waterra tubing and a locked stick-up protective cover; although due to turbidity issues, MW9 is sampled with a disposable bailer. The sampling locations are shown on the enclosed plan, Figure 1, Appendix 1.

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Water samples were collected for analysis based on the list provided in the Water Sampling Protocols prepared by AIM and standard sampling protocols for groundwater and surface water, as well as in the *Amendment to the Approval to Operate a Composting Facility* issued by NSE. The liner sump was dry; therefore, no samples were collected.

Groundwater samples were collected in accordance with laboratory sampling protocols, specifically, we used 120-mL plastic containers for metals (filtered and preserved with nitric acid in the field), 200-mL plastic containers for general inorganic chemistry, and 100-mL amber glass bottles with sulfuric acid preservative for Chemical Oxygen Demand (COD) and Dissolved Organic Carbon (DOC, filtered and preserved in the field). Due to turbidity issues, some samples were not filtered or preserved in the field; this was conducted by the laboratory. Water samples collected from each water sampling location for Total Suspended Solids (TSS) were placed in 500-mL plastic containers.

Surface water samples collected for metals and general inorganic chemistry were collected in the similar bottles as the groundwater samples; however, were not filtered. Surface water samples for mercury analysis were placed in 100-mL amber glass bottles with potassium chromate preservative, whereas, Total Kjeldahl Nitrogen (TKN), Total Phosphorus, Total Phenol, and COD and placed in 100 mL amber glass bottles with sulfuric acid preservative. Water samples collected from each surface water sampling location for Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) were placed in 500-mL plastic containers. Surface water samples for tannins and lignins analysis were placed in 500-mL plastic containers.

The water sample containers were immediately placed in an ice-packed cooler and were transported to Maxxam Analytics laboratory in Bedford, Nova Scotia, for detailed chemical analysis as listed above.

4 RESULTS

4.1 2016 Field Results

Groundwater levels obtained from each monitoring well are presented in Table 4-1, on the following page. Field measurements obtained for the groundwater and surface water sampling stations are presented in Table 4-2, on the following page.

At SW5, there was disturbed organic matter in the water column that was unavoidable during sampling. There was insufficient water to sample SW7 during both events in 2016. The liner sump was dry during all sampling events.

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Table 4-1. Groundwater Elevations at Ragged Lake Compost Facility, Goodwood – 2016

LOCATION	GROUND SURFACE ELEVATION (by others) (metres)	STATIC GROUNDWATER LEVEL (from ground surface) (metres)				GROUNDWATER ELEVATION (metres)			
		Mar	June	Sept	Dec	Mar	June	Sept	Dec
MW1R	118.920	4.17	3.97	4.75	5.41	114.75	114.95	114.170	113.510
MW2	115.123	1.32	1.15	1.35	1.28	113.803	113.973	113.773	113.843
MW3	112.438	0.57	0.44	1.12	0.77	111.868	111.998	111.318	111.668
MW6	111.111	2.78	2.57	3.54	3.00	108.331	108.541	107.571	108.111
MW7S	110.148	0.16	0.06	1.65	0.52	109.988	110.088	108.498	109.628
MW7D	110.116	0.67	0.57	2.07	0.98	109.446	110.056	108.046	109.136
MW9	114.031	4.26	3.83	5.00	4.54	109.771	110.201	109.031	109.491

Table 4-2. Field Measurements at Ragged Lake Compost Facility, Goodwood – 2016

LOCATION	TEMPERATURE (DEGREES CELSIUS)				PH (UNITS)				CONDUCTIVITY (uS/CM)			
	Mar	June	Sept	Dec	Mar	June	Sept	Dec	Mar	June	Sept	Dec
MW1R	4.80	9.77	13.5	-	7.72	6.83	8.3	-	174	193	307	-
MW2	5.83	12.64	19.2	-	7.46	7.46	7.6	-	1709	2151	2350	-
MW3	6.04	9.06	15.6	-	7.27	7.68	7.8	-	514	453	562	-
MW6	5.97	7.33	12.6	-	6.60	7.08	6.9	-	101	117	177.2	-
MW7S	4.03	7.26	12.3	-	6.66	6.84	6.9	-	52	61	148.7	-
MW7D	5.70	7.27	12.8	-	7.07	7.12	7.1	-	219	204	395	-
MW9	5.41	11.41	15.6	-	6.44	6.72	6.6	-	934	1138	1393	-
SW5	-	15.08	-	2.6	-	7.56	-	6.9	-	124	-	125
SW7	-	DRY	-	DRY	-	DRY	-	DRY	-	DRY	-	DRY
SW8	-	10.42	-	3.8	-	8.29	-	7.2	-	58	-	128

4.2 2016 Analytical Results

Laboratory analytical results are presented in Table 1, Appendix 2. Laboratory certificates are presented in Appendix 3. The analytical results are provided in comparison with the 1999 (with 2015 updates) Health Canada Drinking Water Quality Guidelines and the 2013 NSE Pathway

Specific Standards (PSS) for Drinking Water Quality. Specifically, the groundwater results are compared to the standards for drinking water.

There was insufficient water to sample SW7 during both events in 2016. The liner sump was dry; therefore, no samples were collected.

4.2.1 Groundwater

Groundwater is collected on a quarterly basis and analyzed in accordance with Schedule 1, Column 2 (March, June, September) and Column 1 (December) of the Composting Facility Guidelines (except for MW2, which was analyzed in accordance with Column 2 for all events in accordance with New Era's Water Sampling Protocol). Laboratory analytical results are summarized in Table 1, Appendix 2. Analytical results from 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015 are also summarized in Table 3; the historical analytical results compiled by Dillon Consulting are available in the 2005 Annual Report. Past data have not been re-evaluated in conjunction with any revised guidelines.

In March, June, September and December 2016, chloride concentrations (590, 620, 650 and 650 mg/L, respectively) were elevated at MW2 over the CCME drinking water guideline and NSE EQS of 250 mg/L. The Health Canada chloride drinking water guideline is an aesthetic objective only and the historical chloride results are also elevated. Chloride concentrations were not elevated over the guidelines at the other monitor wells during 2016 or historically.

In March, June, September and December 2016, iron concentrations at MW9 (19,000, 22,000, 20,000 and 17,000 µg/L, respectively) exceeded both the Health Canada drinking water guideline and the NSE EQS (300 µg/L). In March, June and September 2016, iron concentrations at MW2 (2200, 1800 and 1600 µg/L, respectively) exceeded both the Health Canada drinking water guideline and the NSE EQS (300 µg/L). Historically iron has been elevated at MW2 and MW9. The Health Canada drinking water standard for iron is an aesthetic objective and iron is common in Nova Scotia groundwater supplies; therefore it is not necessarily attributable to contamination.

In December 2016, the manganese concentrations at MW2 (2900 µg/L), MW6 (1000 µg/L), MW7D (190 µg/L) and MW9 (21,000 µg/L) were elevated over the Health Canada drinking water guideline and the NSE EQS (50 µg/L). Manganese has been historically elevated at these monitoring locations. The manganese drinking water guideline is an aesthetic objective only, and manganese is common in Nova Scotia groundwater supplies; therefore it is not necessarily attributable to contamination.

In March 2016, the pH at MW7S was 6.48, which is below the Health Canada drinking water standard range of 6.5-8.5. pH has occasionally been depressed at MW7S; there is no NSE EQS for pH.

In March, June and September 2016, sodium concentrations at MW2 (270, 290 and 300 mg/L, respectively) exceeded the Health Canada drinking water guideline and NSE EQS (200 mg/L). The CCME drinking water standard for sodium is an aesthetic objective.

During all 2016 sampling events, the total dissolved solids (TDS) concentrations at MW2 (1500 to 1700 mg/L) and MW9 (890 to 1000 mg/L) exceeded the Health Canada drinking water guideline of 500 mg/L; there is no NSE EQS for TDS. The Health Canada TDS drinking water guideline is an aesthetic objective only and elevated TDS has been consistently observed at MW2 in the past. MW9 was installed in March 2011 and has had high sediment levels observed during the subsequent sampling events. TDS has been much lower at the other monitor wells during 2016 and historically.

No other reported parameters analyzed during the 2016 monitoring events exceeded applicable guidelines for groundwater.

4.2.2 Surface Water

Surface water is collected on a semi-annual basis (June and December). The samples were analyzed in accordance with Schedule 1, Column 3 of the Composting Facility Guidelines. Laboratory analytical results are provided in Table 2, Appendix 2. Analytical results from 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015 are also compiled on Table 2; the historical analytical results compiled by Dillon Consulting are available in the 2005 Annual Report. Past data have not been re-evaluated in conjunction with any revised guidelines.

In June and December 2016, cadmium concentrations at SW5 (0.026 and 0.20 µg/L, respectively) and SW8 (0.027 and 0.025 µg/L, respectively) exceeded the NSE surface water guideline (0.1 µg/L); cadmium at SW5 in December 2016 also exceeded the CCME freshwater aquatic life guideline (calculated based on hardness). Historically, cadmium (or its detection limit) has been elevated at most of the surface water locations.

In June and December 2016, copper concentrations at SW5 (2.6 and 16 µg/L, respectively) exceeded the calculated CCME freshwater aquatic life guideline (calculated based on hardness) and the NSE EQS (2 µg/L).

In June and December 2016, iron concentrations at SW5 (780 and 4500 µg/L, respectively) and SW8 (770 and 460 µg/L, respectively) exceeded the CCME freshwater aquatic life surface water guideline and NSE EQS (300 µg/L for both). Historically, iron concentrations have fluctuated at all surface water locations. Elevated iron concentrations are commonly found in surficial soils and surface waters of Nova Scotia.

In December 2016, the lead concentration at SW5 (8.2 µg/L) and in June 2016 at SW8 (1.6 µg/L) were reported in excess of the CCME freshwater aquatic life guideline (calculated based on hardness) and the NSE EQS (1 µg/L).

In June 2016, pH at SW8 was 5.97, which is below the freshwater aquatic life guideline range of 6.5 to 9.0. Historically, pH has been low at SW8.

In December 2016, the zinc concentration at SW5 (130 µg/L) was reported in excess of the CCME freshwater aquatic life guideline and the NSE EQS (30 µg/L).

All other parameters at SW5 and SW8 satisfied the applicable guidelines during the June 2016 and December 2015 events. There was insufficient water to sample SW7 during both events in 2016.

4.3 Liner Sump

The liner sump was dry during all 2016 monitoring events.

4.4 Potable Well Water

During the December 2016 monitoring event, Englobe collected a potable water sample from the building and submitted it for bacterial, general chemistry and total metals analysis. The analytical results are provided in Table 3, Appendix 2. Laboratory certificates are provided in Appendix 3. Analytical results from 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015 are also compiled on Table 3. Past data have not been re-evaluated in conjunction with any revised guidelines.

No coliforms were detected (total or E.coli).

All general chemistry and metals parameters satisfy the drinking water guidelines with the exception of uranium and manganese. A uranium concentration of 77 µg/L was reported and exceeds the Health Canada guideline and NSE EQS of 20 µg/L. The uranium concentrations have fluctuated since 2005 but have always exceeded the current guidelines. The site is situated in an area that is underlain by granite bedrock and naturally elevated uranium concentrations (and radionuclides) in this geologic setting are well documented. Although uranium is naturally occurring, the guideline for it is health-based and therefore the water should not be consumed. A manganese concentration of 300 µg/L was reported and exceeds the Health Canada aesthetic objective (AO) and the NSE EQS of 50 µg/L.

Although there are no other guideline exceedences, there appears to be a slight upward trend of concentrations of such parameters as alkalinity, chloride, strontium, TDS, and associated conductivity in the potable well.

5 SUMMARY AND CONCLUSIONS

Concentrations of most groundwater parameters satisfied applicable guidelines with the exception of arsenic and iron at MW2 and MW9, chloride and sodium at MW2, manganese at MW2, MW6, MW7D and MW9, pH at MW7S and TDS at MW2, MW3 and MW9. Most of these parameters have previously been elevated at the indicated test locations.

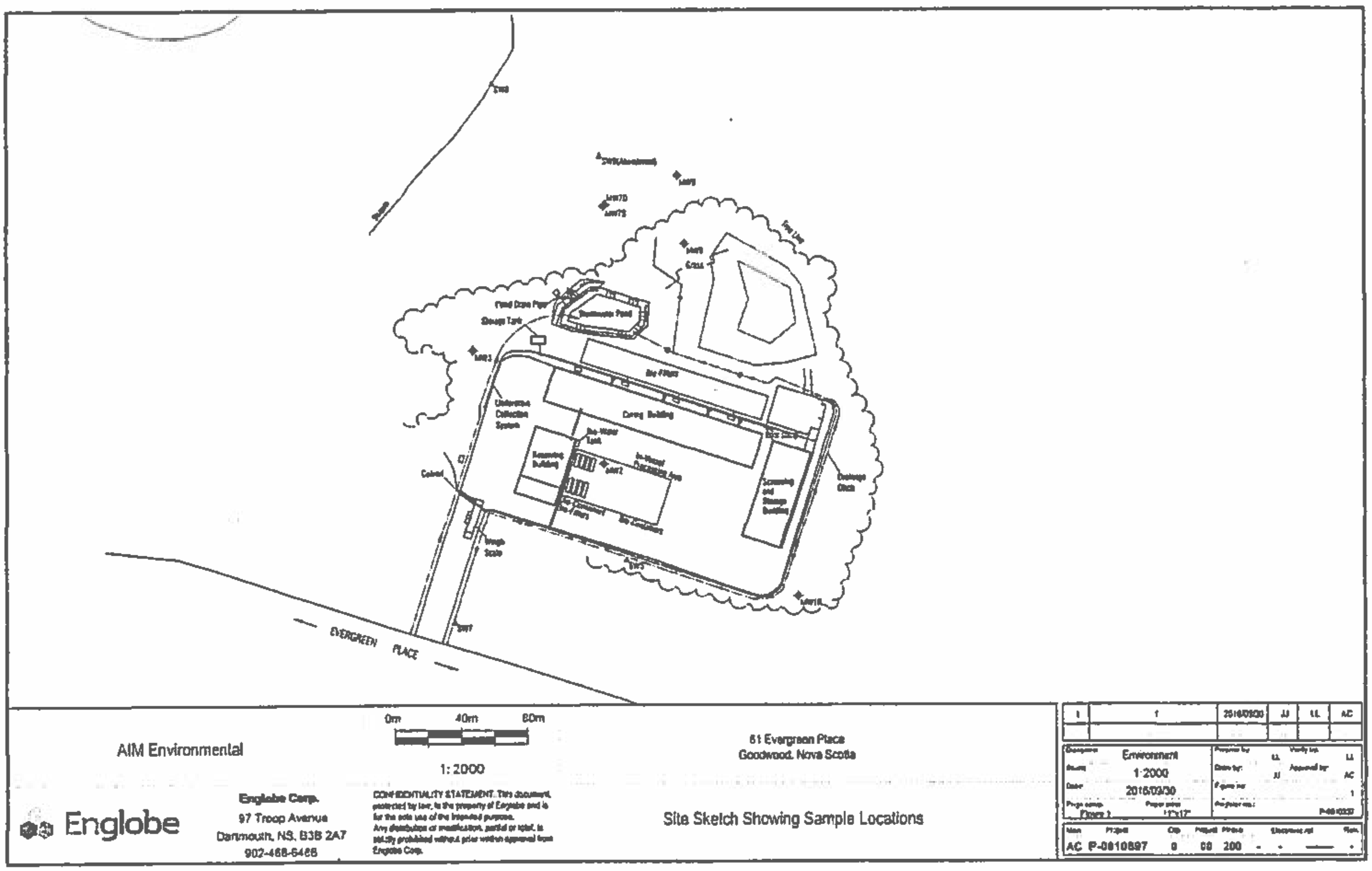
Groundwater quality of select parameters at MW2 are perpetually elevated since it is located in the center of the facility and receives significant water that is affected by snow clearing operations (e.g. salt). At MW6, there was no evidence of the elevated parameters reported at MW2 (chloride, TDS). At MW3 and MW9, chloride concentrations are slightly elevated over values at the rest of the site (71 to 190 mg/L and 83 to 110 mg/L, respectively, compared to 5.0 to 33 mg/L); however, these results are much lower than those reported at MW2 (590 to 650 mg/L). Iron and TDS are also elevated over the guidelines at MW9; iron concentrations at MW9 are higher than MW2 and TDS concentrations at MW9 are lower than MW2. A reduction in iron (and TSS) was been observed at MW2 following repairs to the parking area in 2014; however, levels have since returned to the pre-repair concentrations.

Concentrations of most surface water parameters satisfied applicable guidelines with the exception of cadmium, iron and lead at all locations, copper and zinc at SW5 and pH at SW8. All of these parameters have previously been elevated (or depressed, in the case of pH) at some test locations. Upgrades were made to the drainage surrounding the facility in 2015, including clearing of organic matter (cat tail root mat) from SW5 and the stormwater pond and application of gravel in the ditching. Additionally, increased cat tail growth in the SW7 location has reduced the amount of water in the ditch.

Consistent with previous results, an elevated uranium concentration was detected in the potable water supply. Although uranium naturally occurs at elevated concentrations in this geologic setting, the guideline for uranium is health-based. Therefore, provision of an alternative drinking water supply, such as bottled water, is warranted. Manganese concentrations were also elevated; however, manganese is and aesthetic objective. Other parameters were slightly higher in concentration in the potable well in 2016 as compared with historic data, but no other guideline exceedences were noted.

In accordance with your *Approval*, monitoring will be continued at this site with the quarterly groundwater monitoring event scheduled for March 2017.

Appendix 1 Site Plan



EVERGREEN PLACE
Coring Building
Drainage Ditch
0m 40m 80m
AIM Environmental
1: 2000
61 Evergreen Place
Goodwood, Nova Scotia
Englobe
Englobe Corp.
97 Troop Avenue
Dartmouth, NS, B3B 2A7
902-468-6486
Site Sketch Showing Sample Locations
Environment
1:2000
2016/03/30
AC P-0010897 0 00 200

Appendix 2 Laboratory Analytical Results

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Table 1 : Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011633-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	6 Mar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible] DUP
Ammonia	mg/L	NG	NG	–	–	–	0.2	–	–	–	–	–	< 0.05	–	–	–	–	–	–	0.27	–
Arsenic	µg/L	10 (MAC)	10	–	–	–	< 2	–	–	–	–	–	< 2	–	–	–	–	–	–	< 2	4.7
Barium	µg/L	1000 (MAC)	1000	–	–	–	70	–	–	–	–	–	52	–	–	–	–	–	–	64	64
Boron	µg/L	5000 (MAC)	5000	–	–	–	16	–	–	–	–	–	75	–	–	–	–	–	–	13	14
Cadmium	µg/L	5 (MAC)	5	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	–	< 0.3	–	< 0.3	< 0.3	–	< 0.3	< 0.3
Calcium	mg/L	NG	NG	41	46	46	46	47	46	46	39	51	47	–	46	–	46	46	–	43	43
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG	8.8	< 5	72	< 5	< 5	–	18	< 5	–	< 5	–	10	–	5	< 5	–	< 5	–
Chloride	mg/L	≤ 250 (AO)	250	5.0	4.0	5.3	6	6	–	6	6	–	5	–	6	–	7	6	–	5	–
Chromium	µg/L	50 (MAC)	50	–	–	–	< 1	–	–	–	–	–	< 1	–	–	–	–	–	–	1	6
Conductivity (RCAp)	µS/cm	NG	NG	280	290	290	310	290	–	310	320	–	310	–	300	–	310	310	290	300	–
Copper	µg/L	≤ 1000 (AO)	1000	–	–	–	5	–	–	–	–	–	< 1	–	–	–	–	–	–	5	8
Dissolved Organic Carbon (C)	mg/L	NG	NG	1.0	0.6	< 0.5	1	< 0.5	< 0.5	< 0.5	0.8	0.7	0.6	0.6	2.8	2.8	1.1	1	–	0.8	–
Iron	µg/L	≤ 300 (AO)	300	< 50	[illegible]	[illegible]	< 0.05	< 20	< 20	< 0.02	< 50	< 50	< 50	–	[illegible]	–	< 50	< 50	–	< 50	< 50
Lead	µg/L	10 (MAC)	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	–	< 0.5	–	< 0.5	< 0.5	–	< 0.5	< 0.5
Magnesium	mg/L	NG	NG	5.3	7	7.0	6.6	7.1	7.1	7.4	8	8	7.5	–	7.1	–	7	7	–	7.1	6.9
Manganese	µg/L	50 (AO)	50	–	–	–	11	–	–	–	–	–	91	–	–	–	–	–	–	16	77
Mercury	µg/L	1 (MAC)	1	–	–	–	0.03	–	–	–	–	–	< 0.01	–	–	–	–	–	–	< 0.01	–
Nitrate	mg/L	10 (MAC)	NG	0.05	3.0	0.1	< 0.05	0.16	–	0.14	< 0.05	–	< 0.05	–	0.07	–	< 0.05	< 0.05	–	0.05	–
Nitrite	mg/L	1.0 (MAC)	NG	–	–	–	< 0.05	–	–	–	–	–	< 0.01	–	–	–	–	–	–	< 0.01	–
pH	UNITS	6.5-8.5 (AO)	NG	7.97	8.21	8.13	8.10	8.10	–	8.2	7.90	–	8.21	–	8.01	–	8.11	8.19	8.21	8.07	–
Phenol	mg/L	NG	0.57	–	–	–	0.002	–	–	–	–	–	< 0.001	< 0.001	–	–	–	–	–	< 0.001	–
Potassium	mg/L	NG	NG	1.7	1.7	2	1.9	1.8	1.8	2.1	2	2	1.9	–	1.7	–	2	2.1	–	1.8	1.8
Sodium	mg/L	≤ 200 (AO)	200	9.9	10	11	11	11	11	12	11	11	11	–	12	–	12	12	–	11	11
Sulfate	mg/L	≤ 500 (AO)	NG	2.2	2.8	3.2	3	21	–	4	3	–	2	–	3	–	3	3	–	3	–
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	172	181	180	174	182	–	178	187	–	182	–	183	–	177	175	–	177	–
Total Alkalinity (as CaCO3)	mg/L	NG	NG	160	140	160	150	150	–	150	134	–	160	–	150	–	130	140	–	150	–
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	< 0.1	–	–	–	–	–	0.3	–	–	–	–	–	–	0.2	–
Total Phosphorus	mg/L	NG	NG	–	–	–	0.03	–	–	–	–	–	0.05	–	–	–	–	–	–	0.06	–
Total Suspended Solids (TSS)	mg/L	NG	NG	110	2000	830	2600	250	–	490	200	240	170	–	880	–	300	200	–	840	–
Zinc	µg/L	≤5000 (AO)	5000	–	–	–	6	–	–	–	–	–	7	–	–	–	–	–	–	< 5	< 5

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
– = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result, mercury contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Primary Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high moisture content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

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Table 1 : Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011026-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines [1]	NS Drinking Water Quality Standards [2]
Antimony	µg/L	NG	[illegible]
Arsenic	µg/L	10 (MAC)	10
Barium	µg/L	1000 (MAC)	1000
Boron	µg/L	5000 (MAC)	5000
Cadmium	µg/L	5 (MAC)	5
Calcium	mg/L	NG	NG
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG
Chloride	mg/L	≤ 250 (AO)	250
Chromium	µg/L	50 (MAC)	50
Conductivity (EC lab)	uS/cm	NG	NG
Copper	µg/L	≤1000 (AO)	1000
Dissolved Organic Carbon	mg/L	NG	NG
Iron	µg/L	≤ 300 (AO)	300
Lead	µg/L	10 (MAC)	10
Magnesium	mg/L	NG	NG
Manganese	µg/L	50 (AO)	50
Mercury	µg/L	1 (MAC)	1
Nitrate	mg/L	10 (MAC)	NG
Nitrite	mg/L	1.0 (MAC)	NG
pH	units	6.5-8.5 (AO)	NG
Phenol	mg/L	NG	[illegible]
Potassium	mg/L	NG	NG
Sodium	mg/L	≤ 200 (AO)	200
Sulfate	mg/L	≤ 500 (AO)	NG
TDS (Calculated)	mg/L	≤ 500 (AO)	NG
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG
Total Kjeldahl Nitrogen	mg/L	NG	NG
Total Phosphorus	mg/L	NG	NG
Total Suspended Solids (TSS)	mg/L	NG	NG
Zinc	µg/L	≤5000 (AO)	5000

Notes

AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result, mercury contamination later reported by lab in sample container

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high calcium content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 : Groundwater General Chemistry (Rcap) and Metals
Client: AM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011830-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	µg/L	10 (MAC)	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	µg/L	1000 (MAC)	1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boron	µg/L	5000 (MAC)	5000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	µg/L	5 (MAC)	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	≤ 250 (AO)	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Conductivity (RCAp)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	µg/L	≤1000 (AO)	1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	µg/L	≤ 300 (AO)	300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	µg/L	10 (MAC)	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	µg/L	50 (AO)	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	µg/L	1 (MAC)	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrate	mg/L	10 (MAC)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
pH	UNITS	6.5-8.5 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	0.57	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Phosphorus	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤5000 (AO)	5000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- - laboratory analysis not conducted

[illegible] exceeds CCME drinking water guidelines
[illegible] exceeds both CCME and NSE drinking water guidelines / standards
[illegible] questionable result: mercury contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible] content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 : Groundwater General Chemistry (Raw) and Metals
Client: [illegible] Environmental
Site: Composting Facility, 81 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011628-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	[illegible]	[illegible]	[illegible]	[illegible]	15 Jun	[illegible]	[illegible]	18 May	17 Jun	21 Sep	[illegible]	[illegible]	[illegible]	[illegible]	15 Sep	[illegible] Dup	6 Dec
Antimony	mg/L	NG	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Arsenic	mg/L	10 (MAC)	10	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Barium	mg/L	1000 (MAC)	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Boron	mg/L	5000 (MAC)	5000	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Cadmium	mg/L	5 (MAC)	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Calcium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Chloride	mg/L	≤ 250 (AO)	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	mg/L	50 (MAC)	50	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Conductivity	µS/cm	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	mg/L	≤1000 (AO)	1000	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	mg/L	≤ 300 (AO)	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Lead	mg/L	10 (MAC)	10	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Manganese	mg/L	50 (AO)	50	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Mercury	mg/L	1 (MAC)	1	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Nitrate	mg/L	10 (MAC)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
pH	UNITS	6.5-8.5 (AO)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Potassium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO3)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]	[illegible]	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Total Phosphorus	mg/L	NG	NG	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]
Zinc	mg/L	≤5000 (AO)	5000	[illegible]	-	-	-	-	-	[illegible]	-	-	-	[illegible]	-	-	-	-	-	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] reported by lab in sample [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2013)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible] content
[4] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was decanted due to sediment.
[3] The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011635-0-01-301

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	–	–	–	2	–	–	–	–	0.1	–	–	–	–
Arsenic	µg/L	10 (MAC)	10	–	–	–	<20[a]	–	–	–	–	<20[a]	–	–	–	–
Barium	µg/L	1000 (MAC)	1000	–	–	–	94[a]	–	–	–	–	97[a]	–	–	–	–
Boron	µg/L	5000 (MAC)	5000	–	–	–	<50[a]	–	–	–	–	<50[a]	–	–	–	–
Cadmium	µg/L	5 (MAC)	5	<0.5	<2.5	<1.0	<1.0	<1.0	<0.2	–	<0.2	<10[a]	–	<2.0[a]	<1[a]	<1
Calcium	mg/L	NG	NG	110	160	160	180	180	130	–	180	190	180	120	160	180
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	80	150	140	110	130	110	120	110	120	–	110	140	140
Chloride	mg/L	≤250 (AO)	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	–	–	–	<10[a]	–	–	–	–	<10[a]	–	–	–	–
Conductivity (EC%)	µS/cm	NG	NG	1700	1100	1400	1400	1200	1200	–	1600	1400	–	1200	1400	1300
Copper	µg/L	≤1000 (AO)	1000	–	–	–	<2	–	–	–	–	<10[a]	<2	–	–	–
Dissolved Organic Carbon (DOC)	mg/L	NG	NG	28	46	26	19	40	22	–	30	30	<2	40	28	41
Iron	µg/L	≤300 (AO)	300	<50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	<50[a]	<100[a]	[illegible]	<20	<50[a]	<50
Lead	µg/L	10 (MAC)	10	<0.5	<1[a]	<1[a]	<1[a]	<1[a]	<0.5	–	<1[a]	<1[a]	–	<5.0[a]	<5.0[a]	<5.0[a]
Magnesium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	8.7	7	8.7	–	8.4	1.2	1.2	1.1	[illegible]	9.7
Manganese	µg/L	50 (AO)	50	–	–	–	<20	–	–	–	–	<20	–	–	–	–
Mercury	µg/L	1 (MAC)	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Nitrate	mg/L	10 (MAC)	NG	<0.1	<0.05	<0.05	<0.05	<0.05	[illegible]	–	<0.05	<0.05	–	[illegible]	<0.05	<0.05
Nitrite	mg/L	1.0 (MAC)	1.0	–	–	–	<0.05	–	–	–	–	<0.05	–	–	–	–
pH	units	6.5-8.5 (AO)	NG	[illegible]	7.21	[illegible]	[illegible]	[illegible]	[illegible]	7.21	7.86	[illegible]	–	[illegible]	[illegible]	[illegible]
Phenols	mg/L	NG	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–
Potassium	mg/L	NG	NG	7.2	7.8	6.9	6.8	4.9	4.8	–	9.2	7.2	2.1	5.8	8.8	8.8
Sodium	mg/L	≤200 (AO)	200	80	71	170	170	100	100	–	110	130	110	130	120	120
Sulfate	mg/L	≤500 (AO)	NG	80	30	31	50	40	34	–	81	44	–	52	60	60
TDS (Calculated)	mg/L	≤500 (AO)	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	63	26	50	41	43	47	–	54	63	–	40	31	37
Total Kjeldahl Nitrogen (TKN)	mg/L	NG	NG	–	–	–	–	–	–	–	–	–	–	–	–	–
Total Phosphorus	mg/L	NG	NG	–	–	–	–	–	–	–	–	–	–	–	–	–
Total Suspended Solids (TSS)	mg/L	NG	NG	800	440	200	1200	430	290	–	340	200	140	750	320	190
Zinc	µg/L	≤5000 (AO)	5000	–	–	–	<5.00	–	–	–	–	<20[a]	<5.00	–	–	–

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
– = laboratory analysis not conducted

[shaded] - exceeds CDWG drinking water guidelines
bold - exceeds both CDWG and NSE drinking water guidelines / standards
[hatched] - parameters result warranty contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Guidelines taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[a] Elevated reporting limit due to high analyte content
[b] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

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Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011630-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NS Drinking Water Quality Standards[2]	Sample ID MW? [illegible] 19 Sep	[illegible] Dec	[illegible] Mar	[illegible] (DUP)	2016 [illegible] Aug	[illegible] Sep	[illegible] Sep DUP	[illegible] Oct	[illegible] Dec DUP	2017 [illegible] May	[illegible]	[illegible] Sep	[illegible] Dec
Antimony	µg/L	NG	NG	–	0.2?	–	–	–	–	–	1.0	–	–	–	–	0.47
Arsenic	µg/L	10 (MAC)	10	–	< [illegible][3]	–	–	–	–	–	[illegible]	–	–	–	–	[illegible]
Barium	µg/L	1000 (MAC)	2000	–	< [illegible][3]	–	–	–	–	–	87	–	–	–	–	81
Boron	µg/L	5000 (MAC)	5000	–	< [illegible][3]	–	–	–	–	–	46	–	–	–	–	57
Cadmium	µg/L	5 (MAC)	5	–	<7[3]	<7[3]	–	<1	<1	–	<0.3	–	<3	<1	<3	<0.8
Calcium	mg/L	NG	NG	–	120	180	–	180	180	–	140	–	190	170	190	170
Chemical Oxygen Demand (COD as O$_2$)	mg/L	NG	NG	–	160	120	–	130	120	–	90	–	110	130	90	70
Chloride	mg/L	≤ 250 (AO)	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	–	< [illegible][3]	–	–	–	–	–	<2	–	–	–	–	<2
Conductivity (EC/lab)	µS/cm	NG	NG	1500	1500	1500	–	1300	1300	1300	1200	1300	[illegible]	1700	1500	1300
Copper	µg/L	≤ 1000 (AO)	1000	–	< [illegible][3]	–	–	–	–	–	<2	–	–	–	–	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	–	24	24	–	32	32	–	23	–	41	46	16	15
Iron	µg/L	≤ 300 (AO)	300	–	< [illegible][3]	<500	–	<500	<500	–	<50	–	<500	100	110	<50
Lead	µg/L	10 (MAC)	10	–	< [illegible][3]	< [illegible][3]	–	<5	<5	–	<0.5	–	<5	<5	<5	<0.5
Magnesium	mg/L	NG	NG	–	8.8	8.7	–	1.2	7.9	–	3.1	–	4.2	5.7	7.8	5.8
Manganese	µg/L	≤ 50 (AO)	50	–	7.0	–	–	–	–	–	[illegible]	–	–	–	–	[illegible]
Mercury	µg/L	1 (MAC)	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Nitrate	mg/L	10 (MAC)	NG	–	<0.05	<0.05	–	<0.05	<0.05	–	<0.05	–	<0.05	<0.05	<0.05	<0.05
Nitrite	mg/L	1.0 (MAC)	NG	–	<0.01	–	<0.01	–	–	–	<0.01	–	–	–	–	<0.01
pH	pH units	6.5-8.5 (AO)	NG	[illegible]	[illegible]	[illegible]	–	7.40	7.34	7.72	[illegible]	8.46	7.74	7.58	7.52	8.22
Phenol	mg/L	NG	0.5	–	–	–	–	–	–	–	–	–	–	–	–	–
Potassium	mg/L	NG	NG	–	8.8	8.8	–	8.7	6.8	–	5.6	–	6.1	7.1	7.2	8.2
Sodium	mg/L	≤ 200 (AO)	200	–	110	120	–	170	130	–	130	–	140	150	140	130
Sulfate	mg/L	≤ 500 (AO)	NG	18	80	53	52	45	35	–	61	–	50	40	53	57
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	–	[illegible]	[illegible]	–	[illegible]	[illegible]	–	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO$_3$)	mg/L	NG	NG	57	45	46	41	180	180	–	82	–	180	180	210	130
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	–	–	–	–	–	–	–	–	–	–
Total Phosphorus	mg/L	NG	NG	–	–	–	–	–	–	–	0.1	–	–	–	–	–
Total Suspended Solids (TSS)	mg/L	NG	NG	–	302	190	–	160	180	–	73	–	4000	4000	200	140
Zinc	µg/L	≤5000 (AO)	5000	–	< [illegible][3]	–	–	–	–	–	<5	–	–	–	–	<5

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] result, mercury contamination later reported by lab in sample container(s)

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2014)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high calcium content
[4] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was decanted due to sediment.
[3] The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: ADI Environmental
Site: Composting Facility, 61 Evergreen Place, [illegible], Nova Scotia
Englobe Project No. P-0011632-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	[illegible]	NG	NG	--	--	--	--	2.1	--	--	--	--	2.2
Arsenic	[illegible]	10 (MAC)	10	--	--	--	--	<10	--	--	--	--	[illegible]
Barium	[illegible]	1000 (MAC)	1000	--	--	--	--	165	--	--	--	--	160
Boron	[illegible]	5000 (MAC)	5000	--	--	--	--	<100	--	--	--	--	83
Cadmium	[illegible]	5 (MAC)	5	<1.0	<0.022	<0.2	--	<0.2	<0.017	--	<0.017	<0.017	<0.017
Calcium	[illegible]	NG	NG	[illegible]	[illegible]	180	--	170	[illegible]	--	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O2)	[illegible]	NG	NG	[illegible]	130	130	<30	120	130	--	110	130	120
Chloride	[illegible]	≤250 (AO)	250	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
Chromium	[illegible]	50 (MAC)	50	--	--	--	--	<10	--	--	--	--	<1.0
Conductivity	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
Copper	[illegible]	≤1000 (AO)	1000	--	--	--	--	<10	--	--	--	--	<1.0
Dissolved Organic Carbon (C)	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	3.1	[illegible]
Iron	[illegible]	≤300 (AO)	300	<100	[illegible]	<100	--	<100	[illegible]	--	[illegible]	[illegible]	[illegible]
Lead	[illegible]	10 (MAC)	10	[illegible]	<0.5	<0.5	--	<5	<0.5	--	<0.5	<0.5	<0.5
[illegible]	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	4.3	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	[illegible]	--	--	--	--	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	--	--	--	--	--	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	[illegible]	--	--	--	--	[illegible]
pH	[illegible]	6.5-8.5 (AO)	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	NG	[illegible]	--	--	--	--	--	--	--	--	--	--
[illegible]	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	≤200 (AO)	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	≤500 (AO)	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	≤500 (AO)	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO3)	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	NG	NG	--	--	--	--	--	--	--	--	--	--
[illegible]	[illegible]	NG	NG	--	--	--	--	--	--	--	--	--	--
Total Suspended Solids (TSS)	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	≤5000 (AO)	5000	--	--	--	--	[illegible]	--	--	--	--	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- - Laboratory analysis not conducted

[illegible] - exceeds CDWE drinking water guidelines
[illegible] - exceeds both CDWE and NSE drinking water guidelines / standards
[illegible] - anomalous result, [illegible] reported by lab to [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to [illegible]
[4] The detection limit was increased due to sample matrix
(1) Elevated reporting limit due to sample matrix.
(2) The sample was diluted due to sediment.
(3) The sample was diluted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: [illegible] Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011633-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample ID [illegible]												
				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Antimony	µg/L	NG	NG	–	–	–	3.5	–	–	–	–	[illegible]	–	–	–	[illegible]
Arsenic	µg/L	10 (MAC)	10	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
Barium	µg/L	1000 (MAC)	1000	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
Boron	µg/L	5000 (MAC)	5000	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
Cadmium	µg/L	5 (MAC)	5	<0.017	<0.017	<0.017	<0.017	[illegible]	<0.017	[illegible]	[illegible]	[illegible]	[illegible]	<0.010	<0.010	<0.010
Calcium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	≤250 (AO)	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
Conductivity (RCAP)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	µg/L	≤1000 (AO)	1000	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	<2.0
Dissolved Organic Carbon (C)	mg/L	NG	NG	47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	µg/L	≤300 (AO)	300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	µg/L	10 (MAC)	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	µg/L	50 (AO)	50	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
Mercury	µg/L	1 (MAC)	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Nitrate	mg/L	10 (MAC)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]
pH	UNITS	6.5-8.5 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	–	–	–	–	–	–	–	–	–	–	–	–	–
Potassium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	≤200 (AO)	200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	≤500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	≤500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	–	–	–	–	–	[illegible]	–	–	–	–
Total Phosphorus	mg/L	NG	NG	–	–	–	–	–	–	–	–	[illegible]	–	–	–	–
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤5000 (AO)	5000	–	–	–	[illegible]	–	–	–	–	[illegible]	–	–	–	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
– = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - detections result: [illegible] reported by lab in sample [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2017)
[2] Criteria taken from the 2011 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[a] Elevated reporting limit due to high calcium content
[b] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011638-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NS Drinking Water Quality Standards[2]	[illegible]	[illegible] (Lab Dup)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	-	-	-	-	8.7	-	-	-	13
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	[illegible]	-	-	-	6.8
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	[illegible]	-	-	-	300
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	130	-	-	-	130
Cadmium	µg/L	5 (MAC)	5	<0.010	-	<0.010	<0.010	0.016	<0.010	<0.010	<0.010	<0.010
Calcium	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	210	[illegible]
Chemical Oxygen Demand (COD as O)	mg/L	NG	NG	230	-	190	210	180	170	210	210	200
Chloride	mg/L	≤250 (AO)	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	130	130
Chromium	µg/L	50 (MAC)	50	-	-	-	-	<1.0	-	-	-	<1.0
Conductivity (EC-Lab)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	µg/L	≤1000 (AO)	1000	-	-	-	-	<2.0	-	-	-	<2.0
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	-	31 (1)	[illegible]	31 (1)	[illegible]	[illegible]	24 (1)	23 (1)
Iron	µg/L	≤300 (AO)	300	78	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	71
Lead	µg/L	10 (MAC)	10	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	28	-	24	22	21	[illegible]	[illegible]	22	22
Manganese	µg/L	≤50 (AO)	50	-	-	-	-	[illegible]	-	-	-	[illegible]
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	-	-	-	-
Nitrate	mg/L	10 (MAC)	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.010	-	-	-	<0.010
pH	units	6.5-8.5 (AO)	[illegible]	[illegible]	-	7.36	7.35	[illegible]	[illegible]	7.73	7.72	[illegible]
Phenol	mg/L	NG	[illegible]	-	-	-	-	-	-	-	-	-
Potassium	mg/L	NG	NG	[illegible]	-	11	10	10	[illegible]	10	10	10
Sodium	mg/L	≤200 (AO)	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	≤500 (AO)	NG	[illegible]	-	10	34	29	25	31	[illegible]	[illegible]
TDS (calculated)	mg/L	≤500 (AO)	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO3)	mg/L	NG	NG	[illegible]	-	400	440	[illegible]	[illegible]	[illegible]	[illegible]	400
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	-	-	-	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	120	[illegible]	130	[illegible]	[illegible]
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	<5.0	-	-	-	<5.0

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" = Laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] reported by lab in sample submission

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high solids content.
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was diluted due to sediment.
(3) The sample was diluted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011535-0-01-201

Parameters	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample ID: MW[illegible]											
				[illegible]	[illegible] DUP	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible] DUP
Ammonia	mg/L	NG	NG	-	-	-	-	-	<0.05	-	-	-	-	<0.05	<0.05
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	11.5	-	-	-	-	1	-
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	-	35	-	-	-	-	12	-
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	-	24	-	-	-	-	27	-
Cadmium	µg/L	5 (MAC)	5	<0.1	-	<0.5	-	<0.1	<0.1	<0.2	<0.02	0.03	-	0.02	-
Calcium	mg/L	NG	NG	42	-	39	39	40	40	40	39	42	-	40	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	<5	-	8	-	7	<5	7	<5	22	27	<5	-
Chloride	mg/L	≤ 250 (AO)	250	13	13	10	-	10	10	2	11	16	-	11	-
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	<2	-	-	-	-	2	-
Conductivity (RCAp)	µS/cm	NG	NG	300	-	310	-	300	310	300	280	320	-	370	-
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	-	<2	-	-	-	-	<2	-
Dissolved Organic Carbon (C)	mg/L	NG	NG	<0.5	-	<0.5	-	<0.5	<0.5	0.9	<0.5	<0.5	-	<0.5	-
Iron	µg/L	≤ 300 (AO)	300	<50	-	<50	-	<50	<50	<50	<50	<50	-	<50	-
Lead	µg/L	10 (MAC)	10	<0.5	-	<5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-
Magnesium	mg/L	NG	NG	7.6	-	7.7	7.2	7.3	7.3	7.3	7.3	7.2	-	8.0	-
Manganese	µg/L	50 (AO)	50	-	-	-	-	-	16	-	-	-	-	15	-
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	0.010	-	-	-	-	<0.013	-
Nitrate	mg/L	10 (MAC)	NG	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	-
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	-	<0.01	-	-	-	-	<0.01	-
pH	UNITS	6.5-8.5 (AO)	NG	8.07	-	7.92	-	7.80	8.09	7.80	8.10	8.00	-	8.04	-
Phenol	mg/L	NG	0.07	-	-	-	-	-	<0.001	-	-	-	-	<0.001	-
Potassium	mg/L	NG	NG	1.6	-	1.7	1.7	1.6	1.7	1.6	1.8	1.6	-	1.7	-
Sodium	mg/L	≤ 200 (AO)	200	12	-	12	12	12	13	12	10	12	-	12	-
Sulfate	mg/L	≤ 500 (AO)	NG	2	2	2	-	2	<2	2	2	2	-	3	-
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	180	-	180	-	173	172	180	180	176	-	190	-
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	130	130	130	-	130	140	130	120	140	-	140	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	<0.1	-	-	-	-	<0.1	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	0.18	-	-	-	-	0.02	-
Total Suspended Solids (TSS)	mg/L	NG	NG	110	-	110	-	110	280	210	320	1200	-	520	-
Zinc	µg/L	≤ 5000 (AO)	5000	-	-	-	-	-	<5	-	-	-	-	<5	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result; [illegible] reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[4] Elevated reporting limit due to high [illegible] content
[5] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 21 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011638-0-01-201

Parameter	Units	Health Canada Drinking Water Guideline[1]	NSE Drinking Water Quality Standard[2]	23 Mar	12 Aug	15 Nov	[illegible] DUP	14 Oct	[illegible] DUP	22 Mar	11 Jun	7 Sep	15 Sept DUP	12 Dec
Ammonia	mg/L	NG	NG	-	-	-	-	<0.05	-	-	-	-	-	<0.05
Arsenic	ug/L	10 (MAC)	10	-	-	-	-	8.8	8.7	-	-	-	-	8.8
Barium	ug/L	1000 (MAC)	1000	-	-	-	-	34.8	34.2	-	-	-	-	34.9
Boron	ug/L	5000 (MAC)	5000	-	-	-	-	<50	<50	-	-	-	-	<50
Cadmium	ug/L	5 (MAC)	5	<0.017	<0.017	<0.017	-	<0.017	<0.017	<0.017	<0.017	0.036	-	<0.017
Calcium	mg/L	NG	NG	47.6	44	51.2	-	46.8	45.3	50.3	50.8	44.3	-	52.6
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	5	<5	7	-	<5	-	21	<5	<5	<5	<5
Chloride	mg/L	≤250 (AO)	250	22	20	17	16	18	-	20	22	20	-	52
Chromium	ug/L	50 (MAC)	50	-	-	-	-	<1.0	<1.0	-	-	-	-	<1
Conductance (EC-lab)	uS/cm	NG	NG	330	320	310	-	320	-	390	340	330	-	400
Copper	ug/L	≤1000 (AO)	1000	-	-	-	-	<1	<2	-	-	-	-	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	1.2	<0.5	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5
Iron	ug/L	≤300 (AO)	300	<50	86	<50	-	<50	<50	<50	<50	<50	-	<50
Lead	ug/L	10 (MAC)	10	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.50	<0.5	<0.5	-	<0.5
Magnesium	mg/L	NG	NG	7.81	8	7.88	-	8.33	8.44	8.84	7.96	7.89	-	11.3
Manganese	ug/L	50 (AO)	50	-	-	-	-	141	118	-	-	-	-	<2
Mercury	ug/L	1 (MAC)	1	-	-	-	-	<0.013	<0.013	-	-	-	-	<0.013
Nitrate	mg/L	10 (MAC)	NG	<0.05	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	-	0.079
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.01	-	-	-	-	-	<0.01
pH	Units	6.5-8.5 (AO)	NG	8.07	8.12	8.12	-	8.04	-	7.98	7.98	8.07	-	8.11
Phenol	mg/L	NG	0.17	-	-	-	-	0.003	-	-	-	-	-	0.0020
Potassium	mg/L	NG	NG	1.83	1.8	1.8	-	1.71	1.68	1.74	1.8	1.77	-	1.84
Sodium	mg/L	≤200 (AO)	200	11.1	11	11.2	-	11.3	11.1	10.7	10.7	10.9	-	17.4
Sulfate	mg/L	≤500 (AO)	NG	2	2	2	2	<2	-	2.2	3.2	2.2	-	3.1
TDS (Calculated)	mg/L	≤500 (AO)	NG	179	180	174	-	175	-	220	232	181	-	224
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	150	140	130	140	150	-	180	180	140	-	170
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	<0.1	-	-	-	-	-	1.6
Total Phosphorus	mg/L	NG	NG	-	-	-	-	0.03	-	-	-	-	-	0.79
Total Suspended Solids (TSS)	mg/L	NG	NG	2300	730	76	-	540	-	400	300	1100	-	730
Zinc	ug/L	≤5000 (AO)	5000	-	-	-	-	<5	<5	-	-	-	-	<5

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011633-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample ID: MW-[illegible] 2023: 23 May	23 May DUP	12 Jun	19 Sep	12 Dec	12 Dec Lab [illegible]	2024: 12 Mar	[illegible]	17 Sep	[illegible] Dec
Ammonia	mg/L	NG	NG	-	-	-	-	0.11	-	-	-	-	<0.050
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	2.9	4.0	-	-	-	3.1
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	99	61	-	-	-	170
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	<50	<50	-	-	-	<50
Cadmium	µg/L	5 (MAC)	5	0.087	-	0.022	0.079	<0.010	<0.010	0.017	0.053	0.032	0.037
Calcium	mg/L	NG	NG	63.7	-	74	70	67	55	91	100	140	140
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	28	-	45	26	<5.0	-	20	38	32	<5.0
Chloride	mg/L	≤ 250 (AO)	250	40	-	70	74	69	-	93	170	210	270
Chromium	µg/L	50 (MAC)	50	-	-	-	-	<1.0	-	-	-	-	<1.0
Conductance (RCAP)	uS/cm	NG	NG	460	-	600	540	490	460	600	940	1000	1100
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	<2.0	<2.0	-	-	-	<2.0
Dissolved Organic Carbon (C)	mg/L	NG	NG	0.72	-	<0.8	<0.8	<0.50	-	<0.50	0.91	<0.50	<0.50
Iron	µg/L	≤ 300 (AO)	300	<50	-	<50	<50	<50	<50	<50	53	<50	<50
Lead	µg/L	10 (MAC)	10	<0.5	-	<0.50	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium	mg/L	NG	NG	11.4	-	13	13	12	12	12	15	24	25
Manganese	µg/L	50 (AO)	50	-	-	-	-	2.2	3.1	-	-	-	16
Mercury	µg/L	1 (MAC)	1	-	-	-	-	<0.013	-	-	-	-	<0.013
Nitrate	mg/L	10 (MAC)	NG	<0.05	-	<0.05	<0.05	<0.050	-	0.099	<0.050	<0.050	<0.050
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.010	-	-	-	-	<0.010
pH	UNITS	6.5-8.5 (AO)	NG	7.82	-	7.8	7.87	[illegible]	[illegible]	7.67	7.34	7.31	7.24
Phenol	mg/L	NG	0.17	-	-	-	-	<0.0010 (2)	-	-	-	-	<0.0010 (1)
Potassium	mg/L	NG	NG	1.70	-	1.9	2	1.4	1.6	1.7	1.9	2.3	3.2
Sodium	mg/L	≤ 200 (AO)	200	12.2	-	12	12	12	12	12	15	18	19
Sulfate	mg/L	≤ 500 (AO)	NG	2.2	-	3.0	2.8	2.4	-	2.7	2.4	2.5	2.9
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	240	-	327	310	290	-	290	450	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	160	-	170	170	170	-	130	170	130	160
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	0.20	-	-	-	-	<1.0 (4)
Total Phosphorus	mg/L	NG	NG	-	-	-	-	0.38	-	-	-	-	0.12
Total Suspended Solids (TSS)	mg/L	NG	NG	7200	2300	360	610	940	-	710	820	340	930
Zinc	µg/L	≤ 5000 (AO)	5000	-	-	-	-	<5.0	<5.0	-	-	-	<5.0

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" - laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update [illegible])
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pollutant Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible] content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: A3M Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011636-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	[illegible]	[illegible] DUP	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible] Lab Dup	[illegible]	[illegible] Dup	[illegible]
[illegible]	[illegible]	NG	NG	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	[illegible]	10	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	[illegible]	1000	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	10	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	1 (MAC)	1	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	[illegible]	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	NG	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
pH	[illegible]	[illegible]	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	NG	NG	1.9	-	1.9	-	1.8	2.2	-	[illegible]	1.8	-	1.8	-	2.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	17	-	17	14	-	17	-	[illegible]
[illegible]	[illegible]	[illegible]	NG	[illegible]	[illegible]	3.1	-	3.1	[illegible]	-	[illegible]	[illegible]	[illegible]	2.7	-	[illegible]
[illegible]	[illegible]	[illegible]	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]
[illegible]	[illegible]	NG	NG	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	NG	NG	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]
[illegible]	[illegible]	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-	-	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] reported by lab in sample conditions.

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2015)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[illegible]
[illegible]
(1) [illegible]
(2) The sample was [illegible] due to sediment.
(3) The sample was [illegible] due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011639-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Criteria[2]	[illegible]									
				[illegible]									
				[illegible]					[illegible]				
				8 Mar	8 Mar DUP	15 Jun	15 Aug	13 Dec	14 Mar	14 Mar DUP	Jun	19 Aug	Dec
Ammonia	mg/L	NG	NG	–	–	–	–	< 0.05	–	–	–	–	0.6
Arsenic	µg/L	10 (MAC)	10	–	–	–	–	< 2	–	–	–	–	< 2
Barium	µg/L	[illegible] (MAC)	[illegible]	–	–	–	–	[illegible]	–	–	–	–	21
Boron	µg/L	[illegible] (MAC)	[illegible]	–	–	–	–	7	–	–	–	–	7
Cadmium	µg/L	5 (MAC)	5	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	–	< 0.3	< 0.3	< 0.2
Calcium	mg/L	NG	NG	[illegible]	–	[illegible]	19	[illegible]	[illegible]	–	4.0	15	17
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	8	–	[illegible]	< 20	[illegible]	< 20	–	< 5.0	[illegible]	< 5.0
Chloride	mg/L	≤ 250 (AO)	250	11	14	12	[illegible]	[illegible]	[illegible]	–	13	17	14
Chromium	µg/L	50 (MAC)	50	–	–	–	–	< 2	–	–	–	–	< 2.0
Conductivity (RCAp)	µS/cm	NG	NG	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	–	94	[illegible]	[illegible]
Copper	µg/L	≤ 1000 (AO)	1000	–	–	–	–	< 2	–	–	–	–	< 2
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	–	[illegible]	[illegible]	1.7	[illegible]	–	[illegible]	1.2	1.1
Iron	µg/L	≤ 300 (AO)	300	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	–	0.06	[illegible]	[illegible]
Lead	µg/L	10 (MAC)	10	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	–	< 0.5	< 0.5	< 0.5
Magnesium	mg/L	NG	NG	[illegible]	–	[illegible]	1.3	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]
Manganese	µg/L	[illegible] (AO)	[illegible]	–	–	–	–	[illegible]	–	–	–	–	[illegible]
Mercury	µg/L	1 (MAC)	1	–	–	–	–	< 0.01	–	–	–	–	< 0.01
Nitrate	mg/L	10 (MAC)	NG	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	< 0.05	< 0.05	1.4
Nitrite	mg/L	1 (MAC)	NG	–	–	–	–	[illegible]	–	–	–	–	[illegible]
pH	pH units	6.5-8.5 (AO)	NG	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	–	–	–	–	< 0.001	–	–	–	–	< 0.001
Potassium	mg/L	NG	NG	[illegible]	–	–	[illegible]	[illegible]	[illegible]	–	–	1.2	1.1
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	–	–	[illegible]	[illegible]	7.8	–	–	[illegible]	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	3.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	–	[illegible]	111	[illegible]	[illegible]	–	[illegible]	[illegible]	112
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	41	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	–	[illegible]	–	–	–	–	[illegible]
Total Phosphorus	mg/L	NG	NG	–	–	–	–	[illegible]	–	–	–	–	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	–	[illegible]	[illegible]	[illegible]	2.0	–	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤ 5000 (AO)	5000	–	–	–	–	[illegible]	–	–	–	–	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
– = laboratory analysis not conducted

VALUE - exceeds CCME drinking water guidelines
VALUE - exceeds both CCME and NSE drinking water guidelines / standards
VALUE - [illegible] result; [illegible] reported by lab [illegible] sample [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update [illegible])
[2] Criteria taken from the [illegible] Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update [illegible])
[3] Elevated reporting limit due to high [illegible] content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was diluted due to sediment.
(3) The sample was diluted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011[illegible]

Parameter	Units	Health Canada Drinking Water Guidelines [1]	NSE Drinking Water Quality Standards [2]	[illegible] Nov	[illegible] Mar	10 Jun	[illegible] Aug	[illegible] Feb	[illegible] Mar	[illegible] Jun	20 June DUP	[illegible] Jul	9 Dec	9 Dec DUP
Ammonia	mg/L	NG	NG	–	–	–	–	<0.05	–	–	–	–	<0.05	<0.05
Arsenic	µg/L	10 (MAC)	10	–	–	–	–	<2	–	–	–	–	<2	–
Barium	µg/L	1000 (MAC)	1000	–	–	–	–	25	–	–	–	–	24	–
Boron	µg/L	5000 (MAC)	5000	–	–	–	–	7	–	–	–	–	6	–
Cadmium	µg/L	7 (MAC)	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	–	<0.1	<0.1	–
Calcium	mg/L	NG	NG	11	–	16	15	20	16	20	–	17	20	–
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	13	–	<5	<5	<5	<5	<5	–	5	<5	–
Chloride	mg/L	≤250 (AO)	250	13	–	16	14	15	15	11	13	17	12	–
Chromium	µg/L	50 (MAC)	50	–	–	–	–	[illegible]	–	–	–	–	<2	–
Conductance (RCAp)	µS/cm	NG	NG	110	–	150	170	180	170	170	–	190	170	–
Copper	µg/L	≤1000 (AO)	1000	–	–	–	–	<2	–	–	–	–	<2	–
Dissolved Organic Carbon (C)	mg/L	NG	NG	2.2	–	2	1.2	1.2	2.1	0.8	–	1.6	1.3	–
Iron	µg/L	≤300 (AO)	300	40	–	<50	<50	<50	<50	<50	–	<50	<50	–
Lead	µg/L	10 (MAC)	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	–	<0.5	<0.5	–
Magnesium	mg/L	NG	NG	2.8	–	4.0	4.0	4.2	3.2	4.2	–	3.7	3.9	–
Manganese	µg/L	50 (AO)	50	–	–	–	–	[illegible]	–	–	–	–	[illegible]	–
Mercury	µg/L	1 (MAC)	1	–	–	–	–	<0.01	–	–	–	–	0.01	–
Nitrate	mg/L	10 (MAC)	NG	0.09	–	0.08	<0.05	0.12	<0.05	<0.05	–	<0.05	<0.05	–
Nitrite	mg/L	1.0 (MAC)	NG	–	–	–	–	<0.01	–	–	–	–	<0.01	–
pH	UNITS	6.5-8.5 (AO)	NG	6.43	–	7.07	6.88	6.85	6.70	6.79	–	6.58	6.72	–
Phenol	mg/L	NG	0.07	–	–	–	–	<0.001	–	–	–	–	<0.001	–
Potassium	mg/L	NG	NG	0.7	–	1.3	1.2	1.1	1.0	0.9	–	1.1	1.2	–
Sodium	mg/L	≤200 (AO)	200	9.9	–	11	10	9	12	6.7	–	8.3	9.9	–
Sulfate	mg/L	≤500 (AO)	NG	8	–	6	6	7	8	3	6	6	6	–
TDS (Calculated)	mg/L	≤500 (AO)	NG	64	–	100	111	120	100	125	–	100	110	–
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	33	–	48	66	66	67	48	66	66	71	–
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	–	0.4	–	–	–	–	<0.1	–
Total Phosphorus	mg/L	NG	NG	–	–	–	–	0.03	–	–	–	–	<0.1	–
Total Suspended Solids (TSS)	mg/L	NG	NG	170	–	160	270	130	93	320	–	12	31	–
Zinc	µg/L	≤5000 (AO)	5000	–	–	–	–	<5	–	–	–	–	<5	–

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
– = not analyzed / not sampled

value - exceeds CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result, [illegible] reported by lab in sample [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible] content.
[4] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was [illegible] due to sediment.
[3] The sample was [illegible] due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Raw) and Metals
Client: AW Environmental
Site: Composting Facility, 11 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011533-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	9 Mar	9 Mar DUP	1 Jun	1 Jun DUP	9 Sep	9 Dec	9 Dec DUP	10 Mar	10 Aug	15 Sep	15 Sep DUP	9 Dec	9 Dec DUP
Ammonia	mg/L	NG	NG	-	-	-	-	-	<0.05	-	-	-	-	-	<0.05	-
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	<2	<2	-	-	-	-	<1	-
Barium	µg/L	2000 (MAC)	1000	-	-	-	-	-	23	26	-	-	-	-	23	-
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	-	8	8	-	-	-	-	7	-
Cadmium	µg/L	5 (MAC)	5	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.02	0.09	-	0.04	-
Calcium	mg/L	NG	NG	20	-	19	-	17	22	-	19	17	25	-	17	-
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG	<5	-	7	-	<5	30	-	11	7	<5	-	<5	-
Chloride	mg/L	≤ 250 (AO)	250	12	-	11	-	11	12	-	10	9	17	-	10	10
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	<2	<2	-	-	-	-	2	-
Conductance (EC-Ag)	µS/cm	NG	NG	180	180	170	170	180	180	-	170	170	200	-	170	-
Copper	µg/L	≤1000 (AO)	1000	-	-	-	-	-	<2	<2	-	-	-	-	<2	-
Dissolved Organic Carbon (C)	mg/L	NG	NG	1.0	-	1.4	-	<0.5	1.7	-	0.9	1.0	1.0	1.0	1.0	-
Iron	µg/L	≤ 300 (AO)	300	160	130	<20	-	60	<50	<50	62	42	<50	-	<50	-
Lead	µg/L	10 (MAC)	10	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-
Magnesium	mg/L	NG	NG	4.3	-	3.8	-	3.6	4.3	4.2	3.8	3.5	4.0	-	3.8	-
Manganese	µg/L	20 (AO)	50	-	-	-	-	-	713	814	-	-	-	-	641	-
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	0.079	-	-	-	-	-	<0.013	-
Nitrate	mg/L	10 (MAC)	NG	<0.05	-	<0.05	-	<0.05	<0.05	-	<0.05	0.08	<0.05	-	<0.05	<0.05
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	-	<0.01	-	-	-	-	-	<0.01	<0.01
pH	UNITS	6.5-8.5 (AO)	NG	7.94	7.94	7.88	7.84	6.41	5.97	-	6.77	7.78	7.10	-	7.20	-
Phenol	mg/L	NG	0.57	-	-	-	-	-	0.001	-	-	-	-	-	<0.001	<0.001
Potassium	mg/L	NG	NG	1.0	-	0.9	-	0.9	1.0	-	0.9	0.72	0.9	-	0.88	-
Sodium	mg/L	≤ 200 (AO)	200	9.2	-	8.7	-	8.3	9.1	-	8.0	6.9	8.8	-	8.2	-
Sulfate	mg/L	≤ 500 (AO)	NG	4	-	5	-	5	9	-	3	2	4	-	3	5
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	120	-	120	-	102	126	-	112	101	122	-	110	-
Total Alkalinity (as CaCO3)	mg/L	NG	NG	71	-	64	-	64	79	-	65	60	60	-	70	70
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	<0.1	-	-	-	-	-	0.1	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	0.77	-	-	-	-	-	0.04	-
Total Suspended Solids (TSS)	mg/L	NG	NG	13	-	25	-	22	<50	-	100	110	67	-	57	-
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	-	<5	<5	-	-	-	-	<5	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analysis not conducted

(shaded) - exceeds CCME drinking water guidelines
(bold) - exceeds both CCME and NSE drinking water guidelines / standards
(shaded) - anomalous result; mercury contamination [illegible] reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high nitrogen content
[4] The detection limit was increased due to sample dilution.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample dilution.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 81 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011632-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	[illegible] 25-May	[illegible] 16-Jun	[illegible] 13-Jun (DUP)	[illegible] 12-Sep	[illegible] 16-Dec	[illegible] May	[illegible] May (DUP)	[illegible] 6-Jun	[illegible] 13-Jun (DUP)	[illegible] 12-Sep	[illegible] 12-Dec
Ammonia	mg/L	NG	NG	-	-	-	-	<0.05	-	-	-	-	-	<0.05
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	<1.0	-	-	-	-	-	<1
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	13.7	-	-	-	-	-	20.2
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	<50	-	-	-	-	-	<50
Cadmium	µg/L	5 (MAC)	5	0.053	0.031	-	0.044	0.072	[illegible]	[illegible]	0.055	-	0.079	0.042
Calcium	mg/L	NG	NG	16.5	20	-	21.4	18.6	[illegible]	[illegible]	22.9	-	20.3	23.6
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	8	7	-	8	<5	[illegible]	-	5.0	-	14	<5
Chloride	mg/L	≤ 250 (AO)	250	9	9	-	10	9	8.3	-	9.1	-	8.8	9.9
Chromium	µg/L	50 (MAC)	50	-	-	-	-	<1.0	-	-	-	-	-	<1
Conductivity (RCAp)	µS/cm	NG	NG	150	180	-	170	120	[illegible]	-	[illegible]	-	220	170
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	<2	-	-	-	-	-	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	2.2	1.1	-	3	0.6	1.2	-	1.4	-	0.60	0.77
Iron	µg/L	≤ 300 (AO)	300	<50	<50	-	<50	<50	<50	<50	<50	-	<50	<50
Lead	µg/L	10 (MAC)	10	<0.5	<0.5	-	<0.5	<0.5	<0.50	<0.50	<0.5	-	<0.5	<0.5
Magnesium	mg/L	NG	NG	3.91	4.1	-	4.16	4.01	4.17	4.18	4.08	-	4.67	4.01
Manganese	µg/L	50 (AO)	50	-	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Mercury	µg/L	1 (MAC)	1	-	-	-	-	<0.013	-	-	-	-	-	<0.013
Nitrate	mg/L	10 (MAC)	NG	0.87	<0.05	-	<0.05	[illegible]	<0.05	-	<0.05	-	[illegible]	0.099
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.01	-	-	-	-	-	<0.01
pH	Units	6.5-8.5 (AO)	NG	[illegible]	7.23	-	[illegible]	[illegible]	[illegible]	-	7.05	-	7.30	[illegible]
Phenol	mg/L	NG	[illegible]	-	-	-	-	0.002	-	-	-	-	-	0.0021
Potassium	mg/L	NG	NG	0.77	[illegible]	-	[illegible]	[illegible]	0.911	0.919	[illegible]	-	[illegible]	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	7.31	7.2	-	7.8	7.10	7.16	7.14	[illegible]	-	[illegible]	7.7
Sulfate	mg/L	≤ 500 (AO)	NG	4	4	-	6	5	4	-	4.6	-	4.8	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	97	110	-	115	[illegible]	115	-	122	-	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	-	72	[illegible]	76	-	79	-	67	83
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	<0.1	-	-	-	-	-	[illegible]
Total Phosphorus	mg/L	NG	NG	-	-	-	-	[illegible]	-	-	-	-	-	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	51	1100	1100	100	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤ 5000 (AO)	5000	-	-	-	-	<5	-	-	-	-	-	<5

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analyses not conducted

value - exceeds CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result; possibly contamination later reported by lab in sample container

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2014)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Primary Candidate Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high oil and grease content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: [illegible] Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-[illegible]

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	[illegible]	[illegible]	[illegible]	19 Sep	19 Sep DUP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	-	-	-	-	-	<0.050	-	-	-	-	<0.050
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	<1.0	-	-	-	-	<1.0
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	-	32	-	-	-	-	27
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	-	<50	-	-	-	-	<50
Cadmium	µg/L	5 (MAC)	5	[illegible]	-	0.032	0.026	-	0.027	1.2	-	0.71	0.017	0.044
Calcium	mg/L	NG	NG	10.1	-	20.2	24	-	19	29	-	21	34	22
Chemical Oxygen Demand (COD as O)	mg/L	NG	NG	[illegible]	17	<8	<8	-	<8.0	66	-	72	27	<5.0
Chloride	mg/L	≤ 250 (AO)	250	7.7	-	9.8	8.4	-	7.7	11	-	9.3	8.6	7.7
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	<1.0	-	-	-	-	<1.0
Conductivity (EC/µS)	µS/cm	NG	NG	150	-	170	190	160	175	770	770	140	190	170
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	-	<2.0	-	-	-	-	<2.0
Dissolved Organic Carbon (C)	mg/L	NG	NG	0.95	-	0.90	0.82	-	0.80	2.0	-	0.42	1.1	0.92
Iron	µg/L	≤ 300 (AO)	300	<50	-	<50	<50	-	<50	<50	-	2100	<50	<50
Lead	µg/L	10 (MAC)	10	<0.5	-	<0.50	<0.5	-	<0.50	<0.50	-	1.2	<0.50	<0.50
Magnesium	mg/L	NG	NG	3.9	-	3.9	4.5	-	3.0	8.7	-	4.4	4.5	4.2
Manganese	µg/L	50 (AO)	50	-	-	-	-	-	[illegible]	-	-	-	-	370
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	<0.013	-	-	-	-	<0.013
Nitrate	mg/L	10 (MAC)	NG	<0.05	-	<0.05	<0.05	-	<0.070	<0.050	-	<0.050	<0.050	<0.050
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	-	<0.010	-	-	-	-	<0.010
pH	Units	6.5-8.5 (AO)	NG	7.15	-	6.51	6.40	6.20	6.91	6.67	-	6.00	7.00	6.62
Phenol	mg/L	NG	0.07	-	-	-	-	-	<0.0010	-	-	-	-	<0.0010
Potassium	mg/L	NG	NG	0.884	-	0.990	1	-	0.94	1.1	-	0.97	1.1	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	7.86	-	7.91	7.4	-	7.8	9.4	-	7.3	7.6	8
Sulfate	mg/L	≤ 500 (AO)	NG	4.1	-	3.9	3.9	-	4.8	3.8	-	3.9	4.8	4.8
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	107	-	114	120	-	110	140	-	110	120	120
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	60	-	73	73	-	72	110	-	70	60	60
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	0.11	-	-	-	-	<0.10
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	0.20	-	-	-	-	0
Total Suspended Solids (TSS)	mg/L	NG	NG	250	-	100	74	-	80	170	-	220	300	37
Zinc	µg/L	≤ 5000 (AO)	5000	-	-	-	-	-	<5.0	-	-	-	-	<5.0

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
--- laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible] reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update [illegible])
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[4] Elevated reporting limit due to high sediment content.
[5] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was decanted due to sediment.
[3] The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Resp) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011536-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	15 Mar	[illegible] Jun	21 Sep	21 Sep DUP	1 Dec	1 Dec DUP	1 Mar	7 Mar DUP	[illegible] Jun	[illegible] Jun Lab Dup	1 Sep	1 Dec	[illegible] Lab Dup
Ammonia	mg/L	NG	NG	-	-	-	-	<0.050	-	-	-	-	-	-	<0.050	-
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	<1.0	<1.0	-	-	-	-	-	<1.0	-
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	36	76	-	-	-	-	-	32	-
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	<50	<50	-	-	-	-	-	<50	-
Cadmium	µg/L	5 (MAC)	5	0.040	0.070	0.034	[illegible]	[illegible]	[illegible]	0.022	0.019	[illegible]	-	[illegible]	[illegible]	-
Calcium	mg/L	NG	NG	21	22	22	[illegible]	21	21	22	22	22	-	23	24	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	<5.0	<5.0	<5.0	-	<5.0	-	<5.0	-	<5.0	-	<5.0	8	-
Chloride	mg/L	≤250 (AO)	250	7.6	6.6	7.6	[illegible]	8.8	-	7.6	-	7.8	-	7.5	7.2	-
Chromium	µg/L	50 (MAC)	50	-	-	-	-	<1.0	<1.0	-	-	-	-	-	<1.0	-
Conductance (EC)	µS/cm	NG	NG	170	170	160	[illegible]	150	-	140	-	160	-	150	[illegible]	-
Copper	µg/L	≤1000 (AO)	1000	-	-	-	-	<2.0	<2.0	-	-	-	-	-	<2.0	-
Dissolved Organic Carbon (C)	mg/L	NG	NG	0.79	0.89	0.71	-	0.50	-	0.7	-	0.8	0.6	1.2	1.0	-
Iron	µg/L	≤300 (AO)	300	<50	<50	<50	<50	[illegible]	53	<50	<50	<50	-	<50	<50	-
Lead	µg/L	10 (MAC)	10	<0.50	<0.10	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	-
Magnesium	mg/L	NG	NG	3.9	4.1	4.4	4.3	4.4	4.1	4.4	4.5	4.4	-	4.4	4.4	-
Manganese	µg/L	≤50 (AO)	50	-	-	-	-	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-
Mercury	µg/L	1 (MAC)	1	-	-	-	-	<0.013	-	-	-	-	-	-	<0.013	-
Nitrate	mg/L	10 (MAC)	NG	<0.050	<0.050	<0.050	-	0.022	-	<0.050	-	<0.50	-	<0.050	0.087	-
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.010	-	-	-	-	-	-	<0.010	-
pH	UNITS	6.5-8.5 (AO)	NG	6.96	6.92	6.97	7.07	6.80	-	6.82	-	6.99	-	7.24	7.09	7.00
Phenol	mg/L	NG	0.07	-	-	-	-	<0.0010	-	-	-	-	-	-	0.0013	-
Potassium	mg/L	NG	NG	0.87	0.87	1	0.90	0.90	0.90	0.80	0.80	0.80	-	0.80	1.1	-
Sodium	mg/L	≤200 (AO)	200	7.2	7.1	7.3	7.3	7.3	7.4	7.7	7.1	7.3	-	7.7	7.9	-
Sulfate	mg/L	≤500 (AO)	NG	4.6	4.8	4.7	4.4	4.8	-	5.2	-	6	-	4.7	5.3	-
TDS (calculated)	mg/L	≤500 (AO)	NG	120	120	130	-	120	-	120	-	120	-	120	120	-
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	75	86	63	64	64	-	77	-	63	-	64	60	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	<0.10	-	-	-	-	-	-	0.30	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	0.22	-	-	-	-	-	-	0.24	-
Total Suspended Solids (TSS)	mg/L	NG	NG	70	32	290	-	31	-	14	-	38	-	50	31	-
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	<5.0	<5.0	-	-	-	-	-	5.8	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" = laboratory analysis not conducted

value - exceeds CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result; mercury contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[a] Elevated reporting limit due to high sediment content
[b] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (RCAp) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011639-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample ID											
				[illegible]											
				8-Mar	8-Mar DUP	13-Jun	8-Sep	13-Sep DUP	4-Dec	4-Dec DUP	14-Mar	3-Jun	3-Jun DUP	1-Sep	1-Dec
Ammonia	mg/L	NG	NG	-	-	-	-	-	<0.05	-	-	-	-	-	0.25
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	<2	<2	-	-	-	-	<2
Barium	µg/L	2000 (MAC)	1000	-	-	-	-	-	35	29	-	-	-	-	19
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	-	6	7	-	-	-	-	7
Cadmium	µg/L	5 (MAC)	5	<0.2	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1
Calcium	mg/L	NG	NG	19	-	27	37	30	16	-	12	12	-	21	19
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	7.8	-	13	77	-	6	-	<30	6	-	6	<5.0
Chloride	mg/L	≤ 250 (AO)	250	16	-	17	16	-	17	-	19	17	-	17	12
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	<1	<1	-	-	-	-	<1
Conductivity (EC/µS)	µS/cm	NG	NG	180	-	180	220	-	160	-	170	140	-	160	170
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	-	2	2	-	-	-	-	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	1.8	-	1.1	1.7	-	2.2	-	<0.5	1.2	1.4	1.1	1.7
Iron	µg/L	≤ 300 (AO)	300	<0.05	-	<0.02	0.05	0.05	<50	<50	<70	<0.02	-	<50	<50
Lead	µg/L	10 (MAC)	10	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Magnesium	mg/L	NG	NG	3.7	-	2.9	3.8	5.0	3.4	-	2.7	2.9	-	4	3
Manganese	µg/L	50 (AO)	50	-	-	-	-	-	7	7	-	-	-	-	7
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	0.02	-	-	-	-	-	<0.01
Nitrate	mg/L	10 (MAC)	NG	0.33	-	0.51	0.42	-	0.66	-	0.72	0.8	-	0.34	0.79
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	-	-	-	-	-	-	-	<0.01
pH	UNITS	6.5-8.5 (AO)	NG	6.78	-	6.8	7.06	-	7.21	-	6.66	7.29	-	6.69	7.06
Phenol	mg/L	NG	0.17	-	-	-	-	-	<0.001	-	-	-	-	-	<0.001
Potassium	mg/L	NG	NG	1	-	1.2	1.7	1.7	1.2	-	1	1.5	-	1.6	1.2
Sodium	mg/L	≤ 200 (AO)	200	9.9	-	8.6	10	10	13	-	9.2	11	-	10	9.1
Sulfate	mg/L	≤ 500 (AO)	NG	8.4	9.0	4.8	6.2	-	8	-	4	7	-	7	6
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	90	-	100	101	-	90	-	82	80	-	113	96
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	40	-	46	55	-	38	-	31	33	-	48	40
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	0.1	-	-	-	-	-	1
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	<0.02	-	-	-	-	-	<0.02
Total Suspended Solids (TSS)	mg/L	NG	NG	250	-	120	400	-	160	-	55	160	-	170	35
Zinc	µg/L	≤ 5000 (AO)	5000	-	-	-	-	-	14	14	-	-	-	-	<5.0

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result; recovery contamination later reported by lab in sample collection

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high sediment content
[4] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was decanted due to sediment.
[3] The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Table 1 continued: Groundwater General Chemistry (RCAp) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0211530-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample [illegible]										
				15-Mar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] DUP	[illegible]	[illegible] DUP	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	-	-	-	-	< 0.05	< 0.05	-	-	-	-	<0.05
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	< 2	-	-	-	-	-	<2
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	32	-	-	-	-	-	17
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	8	-	-	-	-	-	7
Cadmium	µg/L	5 (MAC)	5	< 0.1	-	< 0.1	< 0.1	< 0.1	-	<0.1	-	<0.1	<0.1	<0.1
Calcium	mg/L	NG	NG	12	12	15	16	15	-	17	17	19	13	9.6
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG	16	-	< 5	< 5	< 5	-	8	-	8	<5	<5
Chloride	mg/L	≤ 250 (AO)	250	13	-	15	13	12	-	13	-	11	11	11
Chromium	µg/L	50 (MAC)	50	-	-	-	-	< 1	-	-	-	-	-	<1
Conductance (RCAp)	µS/cm	NG	NG	130	-	150	150	120	-	150	150	160	110	110
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	< 2	-	-	-	-	-	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	2.2	-	1.8	1.8	1	1	1.8	-	1.7	1.4	1.8
Iron	µg/L	≤ 300 (AO)	300	30	-	< 50	< 50	< 50	-	<50	-	[illegible]	<50	250
Lead	µg/L	10 (MAC)	10	< 0.5	-	< 0.5	< 0.5	< 0.5	-	<0.5	-	<0.5	<0.5	<0.5
Magnesium	mg/L	NG	NG	2.8	2.8	3.2	3.2	2.4	-	3.1	3.1	3	2.8	2.9
Manganese	µg/L	50 (AO)	50	-	-	-	-	9	-	-	-	-	-	10
Mercury	µg/L	1 (MAC)	1	-	-	-	-	< 0.01	-	-	-	-	-	<0.01
Nitrate	mg/L	10 (MAC)	NG	0.15	-	0.11	0.10	0.10	-	0.10	-	0.20	0.30	0.12
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	< 0.01	-	-	-	-	-	<0.01
pH	Units	6.5-8.5 (AO)	NG	6.90	-	7.07	7.30	6.71	-	[illegible]	7.01	7.16	6.84	6.90
Phenol	mg/L	NG	0.57	-	-	-	-	0.002	-	-	-	-	-	<0.001
Potassium	mg/L	NG	NG	0.9	0.8	1.3	1.8	1.1	-	1.1	1.1	1.2	1.1	1.2
Sodium	mg/L	≤ 200 (AO)	200	10	10	11	11	8.7	-	8.4	8.7	9.9	8.4	8.0
Sulfate	mg/L	≤ 500 (AO)	NG	7	-	5	8	8	-	8	-	9	5	6
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	66	-	87	103	90	-	84	-	110	66	73
Total Alkalinity (as CaCO3)	mg/L	NG	NG	28	-	47	50	38	-	61	-	50	32	31
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	0.7	-	-	-	-	-	0.2
Total Phosphorus	mg/L	NG	NG	-	-	-	-	< 0.02	-	-	-	-	-	0.1
Total Suspended Solids (TSS)	mg/L	NG	NG	170	-	60	400	130	-	230	-	490	20	28
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	< 5	-	-	-	-	-	<5

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result; mercury contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high sodium content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample dilution.
(4) The detection limit was increased due to sample matrix.

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011535-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NS Drinking Water Quality Standards[2]	2011 9 Mar	2011 1 Jun	2011 1 Sep	2011 Dec	2012 13 Mar	2012 18 Jun	2012 17 Sep	2012 Dec	2013 Mar	2013	2013	2013	[illegible]	[illegible]
Aluminum	µg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	µg/L	10 (MAC)	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	µg/L	1000 (MAC)	1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boron	µg/L	5000 (MAC)	5000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	µg/L	5 (MAC)	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O2)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	≤ 250 (AO)	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Conductivity (µS/cm)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	µg/L	≤ 1000 (AO)	1000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	µg/L	≤ 300 (AO)	300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	µg/L	10 (MAC)	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	µg/L	50 (AO)	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	µg/L	1 (MAC)	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrate	mg/L	10 (MAC)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
pH	units	6.5-8.5 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO3)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Phosphorus	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤5000 (AO)	5000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- laboratory analysis not conducted

- exceeds CCME drinking water guidelines
- exceeds both CCME and NSE drinking water guidelines / standards
- anomalous result; laboratory contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2012)
[2] Criteria taken from the 2012 Nova Scotia Environment (NSE) Pollutant Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high ... content
[4] The detection limit was increased due to sample matrix.
[1] Elevated reporting limit due to sample matrix.
[2] The sample was decanted due to sediment.
[3] The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
[4] The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011630-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	[illegible]	3 Jun	3 Sep	17 Dec	17 Dec DUP	[illegible] May	[illegible] Jun	[illegible] Jun DUP	[illegible] Sep	[illegible] Dec	[illegible] Dec DUP
Antimony	µg/L	NG	NG	–	–	–	[illegible]	[illegible]	-	-	-	-	[illegible]	-
Arsenic	µg/L	[illegible] (MAC)	[illegible]	–	–	–	<1	–	-	-	-	-	<1.0	-
Barium	µg/L	[illegible] (MAC)	[illegible]	–	–	–	[illegible]	–	-	-	-	-	[illegible]	-
Boron	µg/L	[illegible] (MAC)	[illegible]	–	–	–	<[illegible]	–	-	-	-	-	<[illegible]	-
Cadmium	µg/L	[illegible] (MAC)	[illegible]	<0.017	<0.017	<0.017	<0.017	–	[illegible]	<0.017	-	[illegible]	[illegible]	-
Calcium	mg/L	NG	NG	[illegible]	7.11	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	<[illegible]	–	[illegible]	<[illegible]	-	<[illegible]	<[illegible]	-
Chloride	mg/L	≤ 250 (AO)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Chromium	µg/L	[illegible] (MAC)	[illegible]	–	–	–	[illegible]	–	-	-	-	-	<[illegible]	-
Conductivity (25 C)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Copper	µg/L	≤ 1000 (AO)	[illegible]	–	–	–	<2	–	-	-	-	-	<[illegible]	-
Dissolved Organic Carbon [illegible]	mg/L	NG	NG	[illegible]	[illegible]	<[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	<[illegible]	<[illegible]
Iron	µg/L	≤ 300 (AO)	[illegible]	<[illegible]	<[illegible]	<[illegible]	<[illegible]	–	<[illegible]	<[illegible]	-	<[illegible]	<[illegible]	-
Lead	µg/L	[illegible] (MAC)	[illegible]	<[illegible]	<[illegible]	<[illegible]	<[illegible]	–	<[illegible]	<[illegible]	-	<[illegible]	<[illegible]	-
Magnesium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Manganese	µg/L	[illegible] (AO)	[illegible]	–	–	–	<2	–	-	-	-	-	<[illegible]	-
Mercury	µg/L	[illegible] (MAC)	1	–	–	–	<[illegible]	–	-	-	-	-	<[illegible]	-
Nitrate	mg/L	[illegible] (MAC)	NG	<[illegible]	[illegible]	[illegible]	[illegible]	–	<[illegible]	<[illegible]	-	<[illegible]	<[illegible]	-
Nitrite	mg/L	[illegible] (MAC)	NG	–	–	–	<[illegible]	–	-	-	-	-	<[illegible]	-
pH	Units	[illegible] (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Phenol	mg/L	NG	[illegible]	–	–	–	[illegible]	–	-	-	-	-	<[illegible] [1]	-
Potassium	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Sodium	mg/L	≤ [illegible] (AO)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Sulfate	mg/L	≤ [illegible] (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
TDS (Calculated)	mg/L	≤ [illegible] (AO)	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	[illegible]	–	-	-	-	-	[illegible]	-
Total Phosphorus	mg/L	NG	NG	–	–	–	[illegible]	–	-	-	-	-	[illegible]	-
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-
Zinc	µg/L	≤ [illegible] (AO)	[illegible]	–	–	–	<5	–	-	-	-	-	<[illegible]	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" laboratory analysis not conducted

value - exceeds CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result, dilution/contamination [illegible] reported by lab in [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update [illegible])
[2] Criteria taken from the [illegible] Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible] content.
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample depth.

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011532-0-01-201

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	NG	NG	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Barium	µg/L	[illegible]	[illegible]	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Cadmium	µg/L	[illegible]	5	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Calcium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Chloride	mg/L	≤ 250 (AO)	250	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Conductivity (RCAp)	µS/cm	NG	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Copper	µg/L	≤ 1000 (AO)	[illegible]	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	µg/L	≤ 300 (AO)	[illegible]	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Lead	µg/L	10 (MAC)	[illegible]	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Manganese	µg/L	[illegible]	[illegible]	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Nickel	mg/L	[illegible]	NG	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Nitrate	mg/L	[illegible]	NG	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
pH	pH units	[illegible]	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Potassium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	-	[illegible]	-	[illegible]	-	-	[illegible]	[illegible]	-	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]
Zinc	µg/L	≤ 5000 (AO)	[illegible]	-	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]

Notes

AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" - laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result; [illegible] reported by lab in sample container

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update [illegible])
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to high [illegible]
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was discarded due to [illegible].
(3) The sample was [illegible] due to [illegible]. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011533-0-01-301

Parameter	Units	Health Canada Drinking Water Guidelines[1]	NSE Drinking Water Quality Standards[2]	Sample ID					
				7 Mar	13 Jun	13 Sep	13 Sep Lab Dup	[illegible]	6 Dec Lab Dup
Ammonia	mg/L	NG	NG	-	-	-	-	<0.050	-
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	<1.0	-
Barium	µg/L	1000 (MAC)	1000	-	-	-	-	12	-
Boron	µg/L	5000 (MAC)	5000	-	-	-	-	<50	-
Cadmium	µg/L	5 (MAC)	5	0.013	<0.010	0.011	<0.010	<0.010	-
Calcium	mg/L	NG	NG	8.8	9.8	7.8	7.8	7.7	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	<5.0	<5.0	23	-	<5.0	-
Chloride	mg/L	≤ 250 (AO)	250	8.3	8.3	8.8	-	8.8	-
Chromium	µg/L	50 (MAC)	50	-	-	-	-	<1.0	-
Conductivity (EC lab)	µS/cm	NG	NG	78	90	74	-	84	-
Copper	µg/L	≤ 1000 (AO)	1000	-	-	-	-	<2.0	-
Dissolved Organic Carbon (C)	mg/L	NG	NG	<0.50	<0.50	0.40	-	1.7	-
Iron	µg/L	≤ 300 (AO)	300	<50	<50	<50	<50	<50	-
Lead	µg/L	10 (MAC)	10	<0.50	<0.50	<0.50	<0.50	<0.50	-
Magnesium	mg/L	NG	NG	1.7	1.6	1.7	1.7	1.8	-
Manganese	µg/L	50 (AO)	50	-	-	-	-	2.0	-
Mercury	µg/L	1 (MAC)	1	-	-	-	-	0.032	-
Nitrate	mg/L	10 (MAC)	NG	<0.050	<0.050	<0.050	-	<0.050	-
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	<0.010	-
pH	UNITS	6.5-8.5 (AO)	NG	6.41	6.7	6.86	-	6.86	-
Phenol	mg/L	NG	0.57	-	-	-	-	<0.0010	-
Potassium	mg/L	NG	NG	0.95	0.91	0.76	0.77	0.77	-
Sodium	mg/L	≤ 200 (AO)	200	8.7	9.9	8.4	8.9	8.9	-
Sulfate	mg/L	≤ 500 (AO)	NG	5.6	5.5	5.2	-	5.0	-
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	50	54	53	-	49	-
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	23	23	21	-	26	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	0.17	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	0.72	-
Total Suspended Solids (TSS)	mg/L	NG	NG	210	1900	610	-	[illegible]	640
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	<5.0	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analysis not conducted

value - exceeds only CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result, mercury contamination later reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2017)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[4] Elevated reporting limit due to high [illegible] content
[5] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.
(4) The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Raw) and Metals
Client: A[illegible] Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-[illegible]

Parameter	Units	Health Canada Drinking Water Guideline [1]	NSE Drinking Water Standard [2]	Results
Ammonia	mg/L	[illegible]	[illegible]	[illegible]
Arsenic	mg/L	[illegible]	[illegible]	[illegible]
Barium	mg/L	[illegible]	[illegible]	[illegible]
Boron	mg/L	[illegible]	[illegible]	[illegible]
Cadmium	mg/L	[illegible]	[illegible]	[illegible]
Calcium	mg/L	NG	NG	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]
Chloride	mg/L	[illegible]	[illegible]	[illegible]
Chromium	mg/L	[illegible]	[illegible]	[illegible]
Conductivity (EC/µS)	µS/cm	NG	NG	[illegible]
Copper	mg/L	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]
Iron	mg/L	[illegible]	[illegible]	[illegible]
Lead	mg/L	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]
Manganese	mg/L	[illegible]	[illegible]	[illegible]
Mercury	mg/L	[illegible]	[illegible]	[illegible]
Nitrate	mg/L	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	[illegible]	[illegible]	[illegible]
pH	pH units	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	[illegible]
Potassium	mg/L	NG	NG	[illegible]
Sodium	mg/L	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	[illegible]	NG	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]
Total Phosphorus	mg/L	NG	NG	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]
Zinc	mg/L	[illegible]	[illegible]	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines ([illegible])
[2] Criteria taken from the [illegible] Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards ([illegible])
[3] [illegible]
[4] The detection limit was increased due to sample matrix.
(1) [illegible]
(2) The sample was [illegible] due to sediment
(3) The sample was [illegible] due to sediment. The detection limit was increased due to sample matrix

Englobe

Table 1 continued: Groundwater General Chemistry (RCAp) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P 0011038 0 01 201

Parameter	Units	Health Canada Drinking Water Guidelines [1]	NSE Pathway Specific Drinking Water Standards [2]	2017: 16 May	2017: 10 Aug	2017: 19 Oct	2017: 19 Oct DUP	2017: 12 Dec	2018: 22 May	2018: 21 [illegible]	2018: 3 Sep	2018: 6 Dec
Ammonia	mg/L	NG	NG	–	–	–	–	<0.05	–	–	–	<0.05
Arsenic	µg/L	10 (MAC)	10	–	–	–	–	<1	–	–	–	<1
Barium	µg/L	1000 (MAC)	1000	–	–	–	–	20	–	–	–	19
Boron	µg/L	5000 (MAC)	5000	–	–	–	–	8	–	–	–	8
Cadmium	µg/L	5 (MAC)	5	<0.3	<0.3	<0.3	–	<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L	NG	NG	39	21	38	–	81	53	42	45	39
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	14	7	<5	–	6	30	45	5	5
Chloride	mg/L	≤250 (AO)	250	17	17	19	17	17	16	15	15	17
Chromium	µg/L	50 (MAC)	50	–	–	–	–	<2	–	–	–	<2
Conductance (EC)	µS/cm	NG	NG	300	300	470	–	410	400	310	320	330
Copper	µg/L	≤1000 (AO)	1000	–	–	–	–	<2	–	–	–	<2
Dissolved Organic Carbon (C)	mg/L	NG	NG	1.4	1.5	1.8	1.3	1.2	1.5	1.6	1.3	1.1
Iron	µg/L	≤300 (AO)	300	30	<50	<50	–	<50	<50	<50	220	<50
Lead	µg/L	10 (MAC)	10	<0.5	<0.5	<0.5	–	<0.5	<0.5	<0.5	<0.5	<0.5
Magnesium	mg/L	NG	NG	11	12	13	–	13	12	9.3	11	10
Manganese	µg/L	50 (AO)	50	–	–	–	–	40	–	–	–	140
Mercury	µg/L	1 (MAC)	1	–	–	–	–	<0.01	–	–	–	0.02
Nitrate	mg/L	10 (MAC)	NG	0.46	<0.05	<0.05	–	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrite	mg/L	1.0 (MAC)	NG	–	–	–	–	<0.01	–	–	–	<0.01
pH	units	6.5-8.5 (AO)	NG	7.13	7.18	7.31	–	7.71	7.44	7.12	7.03	7.66
Phenol	mg/L	NG	0.57	–	–	–	–	0.002	–	–	–	<0.001
Potassium	mg/L	NG	NG	1.3	1.7	2	–	1.4	1.3	1.1	1.2	1.6
Sodium	mg/L	≤200 (AO)	200	14	11	14	–	12	12	11	11	12
Sulfate	mg/L	≤500 (AO)	NG	4	1	5	3	3	3	3	3	3
TDS (Calculated)	mg/L	≤500 (AO)	NG	217	210	220	–	210	220	170	210	180
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	170	180	180	180	200	190	130	170	150
Total Kjeldahl Nitrogen	mg/L	NG	NG	–	–	–	–	0.5	–	–	–	0.7
Total Phosphorus	mg/L	NG	NG	–	–	–	–	0.05	–	–	–	0.07
Total Suspended Solids (TSS)	mg/L	NG	NG	23	21	130	–	36	9	10	3	22
Zinc	µg/L	≤5000 (AO)	5000	–	–	–	–	<5	–	–	–	<5

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- laboratory analysis not conducted

value - exceeds CCME drinking water guidelines
value - exceeds both CCME and NSE drinking water guidelines / standards
value - anomalous result, [illegible] reported by lab in sample containers

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines (Update 2019)
[2] Criteria taken from the 2013 Nova Scotia Environment (NSE) Pathway Specific Drinking Water Quality Standards (Update 2014)
[3] Elevated reporting limit due to [illegible] content
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.

Englobe

Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 31 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011632-0-01-301

[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
-- = laboratory analysis not conducted

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

[illegible]

Englobe

Table 1 continued: Groundwater General Chemistry (...) and Metals
Client: [illegible] Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-[illegible]

Parameter	Units	Health Canada Drinking Water Guidelines	NS Drinking Water Quality Standards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Antimony	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boron	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Conductivity (EC25)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon (C)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrate	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
pH	units	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Phosphorus	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Suspended Solids (TSS)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" laboratory analysis not conducted

- exceeds CCME drinking water guidelines
- exceeds both CCME and NSE drinking water guidelines / standards
- anomalous result; [illegible]

[illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[1] [illegible]
[2] [illegible]
[3] [illegible]

Englobe

Table 1 continued: Groundwater General Chemistry [illegible] and Metals
Client: [illegible] Environmental
Site: Composting Facility, [illegible] Evergreen Place, [illegible], Nova Scotia
Englobe Project No. [illegible]

Parameter	Units	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boron	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Conductivity (EC)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon (C)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrate	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
pH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Phosphorus	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Suspended Solids (TSS)	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	mg/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- - laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - [illegible]

[illegible]

[1] Criteria taken from the Health Canada Drinking Water Quality Guidelines [illegible]
[2] Criteria taken from the [illegible] Nova Scotia Environment (NSE) [illegible] Drinking Water Quality Standards [illegible]
[3] Elevated reporting limit due to [illegible]
[4] The detection limit was increased due to sample matrix.
(1) Elevated reporting limit due to sample matrix.
(2) The sample was decanted due to sediment.
(3) The sample was decanted due to sediment. The detection limit was increased due to sample matrix.

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Table 1 continued: Groundwater General Chemistry (Raw) and Metals
Client: [illegible] Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011038-0-01-[illegible]

Parameter	Units	Health Canada Drinking Water Guidelines	NSE Drinking Water Quality Standards	Sample ID [illegible]										
				[illegible]										
				[illegible]						[illegible]				
				27-Mar	28-Mar DUP	1-Jun	1-Jun DUP	[illegible]-Aug	14-Dec	14-Dec DUP	[illegible]-May	[illegible]-Jun	[illegible]-Aug DUP	[illegible]-Aug
Ammonia	mg/L	NG	NG	-	-	-	-	-	0.17	-	-	-	-	-
Arsenic	µg/L	10 (MAC)	10	-	-	-	-	-	[illegible]	-	-	-	-	-
Barium	µg/L	[illegible] (MAC)	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-
Boron	µg/L	[illegible] (MAC)	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	-
Cadmium	µg/L	5 (MAC)	5	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Calcium	mg/L	NG	NG	[illegible]	-	217	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	≤ 250 (AO)	250	47	-	40	40	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Chromium	µg/L	50 (MAC)	50	-	-	-	-	-	1.7	-	-	-	-	-
Conductivity (RCAp)	µS/cm	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Copper	µg/L	≤1000 (AO)	1000	-	-	-	-	-	[illegible]	-	-	-	-	-
Dissolved Organic Carbon (C)	mg/L	NG	NG	17	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Iron	µg/L	≤ 300 (AO)	300	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Lead	µg/L	10 (MAC)	10	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Manganese	µg/L	50 (AO)	50	-	-	-	-	-	[illegible]	-	-	-	-	-
Mercury	µg/L	1 (MAC)	1	-	-	-	-	-	[illegible]	[illegible]	-	-	-	-
Nitrate	mg/L	10 (MAC)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Nitrite	mg/L	1.0 (MAC)	NG	-	-	-	-	-	[illegible]	-	-	-	-	-
pH	units	6.5-8.5 (AO)	NG	7.31	-	7.5	-	[illegible]	[illegible]	-	7.17	[illegible]	-	[illegible]
Phenol	mg/L	NG	[illegible]	-	-	-	-	-	[illegible]	[illegible]	-	-	-	-
Potassium	mg/L	NG	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Sodium	mg/L	≤ 200 (AO)	200	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Sulfate	mg/L	≤ 500 (AO)	NG	<2	-	<2	<2	<2	<2	-	<2	<2	-	<2
TDS (Calculated)	mg/L	≤ 500 (AO)	NG	[illegible]	-	[illegible]	-	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	-	-	-	-	-	1.1	-	-	-	-	-
Total Phosphorus	mg/L	NG	NG	-	-	-	-	-	[illegible]	-	-	-	-	-
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	77	[illegible]	[illegible]	[illegible]
Zinc	µg/L	≤5000 (AO)	5000	-	-	-	-	-	[illegible]	-	-	-	-	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- = laboratory analysis not conducted

[illegible] - exceeds CDWQ drinking water guidelines
[illegible] - exceeds both CDWQ and NSE drinking water guidelines / standards
[illegible] - [illegible]

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

Englobe

Table 1 continued: Groundwater General Chemistry (RCAp) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011133-0-01-301

Parameter	Units	Health Canada Drinking Water Guidelines	CCME Drinking Water Quality Guidelines	Sample ID MW-1 2013 [illegible]	[illegible] Lab Dup	[illegible]	[illegible]	[illegible]	19 Sep Lab Dup	[illegible] Dec	[illegible] Dec Lab Dup	2014 [illegible] Mar	[illegible] Jun	[illegible] Sep	[illegible]
Ammonia	mg/L	NG	NG	[illegible]	-	-	-	-	-	[illegible]	[illegible]	-	-	-	[illegible]
Arsenic	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Barium	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Boron	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Cadmium	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	-	-	[illegible]	-	-	-	-	[illegible]
Conductivity (EC lab)	µS/cm	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Copper	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Dissolved Organic Carbon (C)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Iron	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Lead	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Mercury	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Nitrate	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Nitrite	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
pH	units	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	mg/L	NG	[illegible]	[illegible]	0.020	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Potassium	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	mg/L	[illegible]	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
TDS (Calculated)	mg/L	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as $CaCO_3$)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	-	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Total Phosphorus	mg/L	NG	NG	[illegible]	0.17	-	-	-	-	[illegible]	-	-	-	-	[illegible]
Total Suspended Solids (TSS)	mg/L	NG	NG	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	mg/L	[illegible]	[illegible]	[illegible]	-	-	-	-	-	[illegible]	-	-	-	-	[illegible]

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
"-" = laboratory analysis not conducted

[value] - exceeds CCME drinking water guidelines
[value] - exceeds both CCME and HC drinking water guidelines / standards
[value] - estimated result, [illegible] reported by lab in sample statement

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

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Table 1 continued: Groundwater General Chemistry (Rcap) and Metals
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011832-0-01-201

Parameter	Unit	Health Canada Drinking Water Guidelines	NS Drinking Water Quality Standards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ammonia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arsenic	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Barium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Boron	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cadmium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chemical Oxygen Demand (COD as O)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chloride	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Chromium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Conductivity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Copper	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dissolved Organic Carbon (C)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lead	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Manganese	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mercury	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nickel	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nitrate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
pH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Phenol	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Potassium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sulfate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TDS (calculated)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Alkalinity (as CaCO3)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Kjeldahl Nitrogen	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Phosphorus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Suspended Solids (TSS)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Zinc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
- - laboratory analysis not conducted

[illegible] - exceeds CCME drinking water guidelines
[illegible] - exceeds both CCME and NSE drinking water guidelines / standards
[illegible] - anomalous result: mercury contamination later reported by lab in sample bottles

PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

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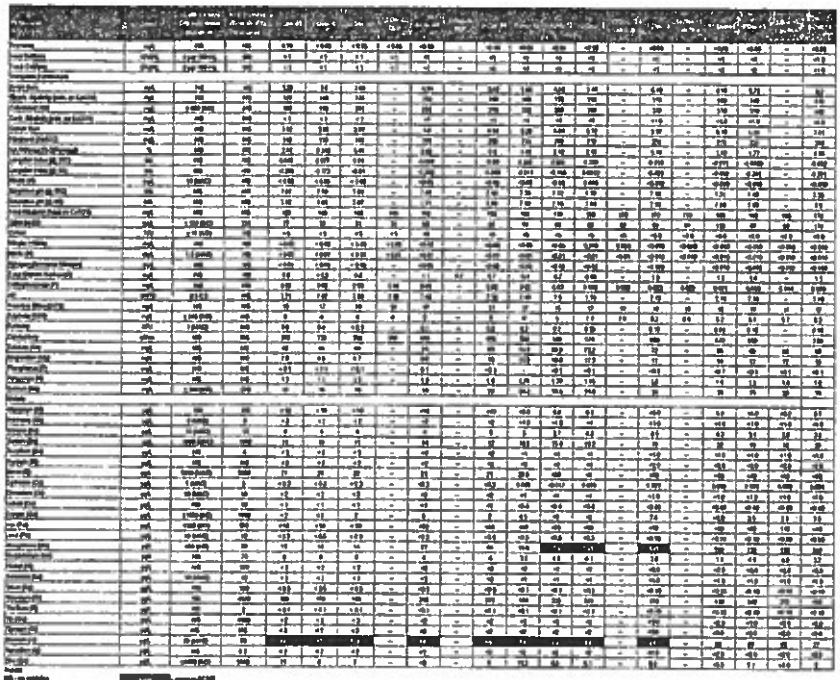

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Table 2: Surface Water Analytical Results
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011520-0-01-201

Parameter	Units	NSE Tier 1 EQS Surface Water[1]	CCME Freshwater Aquatic Life Guidelines[2]	[illegible] 5 June	14 Dec	June	June DUP	Dec	June	[illegible]	Dec	June	Dec	Dec DUP	[illegible]	Dec	19 Jun	19 Jun DUP	[illegible]	[illegible]	[illegible]	[illegible]	12 Dec	14 Dec Lab Dup
Alkalinity (Total, as $CaCO_3$)	mg/L	NG	NG	78	Frozen Snow Covered	10	10	9.0	20	–	Frozen Snow Covered	60	10	–	60	16	21	–	37	16	Frozen Snow Covered	Dry	25	–
Ammonia	mg/L	NG	varies[3]	0.12		<0.05	–	<0.05	<0.05	–		0.07	<0.05	–	<0.05	<0.05	<0.05	–	0.06	<0.05			<0.05	–
Arsenic	µg/L	5	5.0	<7		<2	–	<2	<2	–		<2	<2	–	2	<1	1	–	<1	1.7			1.1	–
Barium	µg/L	1000	NG	22		<5.0	–	17	9	–		10	24	13	7	7	1	–	18	5			18.8	–
Boron	µg/L	1200	1500	12		<5.0	–	7.0	3	–		10	6	8	11	9	12	–	7	<50			<50	–
Cadmium	µg/L	0.01	Equation[4]	<0.1		<0.3	–	<0.3	<0.3	–		<0.3	<0.3	–	<0.3	<0.3	<0.02	–	<0.02	<0.017			0.2(1)	–
Chloride	mg/L	NG	120	10		3.0	3.0	40	37	–		7	34	–	50	31	23	–	70	8			0.7	–
Chromium	µg/L	NG	NG	<2		<2	–	<2	4	–		<2	<2	–	<2	<2	<1	–	<1	<1			2.9	–
Conductance (RCAp)	uS/cm	NG	NG	200		35	–	190	170	–		190	150	–	290	130	170	–	190	87			82	82
Copper	µg/L	2	2 to 4[5]	3.7		<2.0	–	<2.0	2	–		<2	<2	–	3	<2	7.5	–	8.7	1.8			7.5	–
Iron	µg/L	300	300	[illegible]		270	–	230	770	–		460	<50	–	7400	1400	1600	–	51	[illegible]			2000	–
Lead	µg/L	1	1 to 7[6]	0.8		<0.5	–	<0.5	<0.5	–		<0.5	<0.5	–	1.6	<0.5	7	–	<0.5	0.51			4	–
Mercury	µg/L	0.026	0.026	<0.05		<0.05	–	<0.01	<0.01	–		[illegible]	0.01	–	<0.013	0.022	<0.013	–	<0.012	<0.013			<0.013	–
Nitrate (as N)	mg/L	NG	13.0	2.9		0.09	–	<0.05	<0.05	–		<0.05	–	–	0.09	<0.05	0.75	–	0.25	<0.05			0.27	–
Nitrite	mg/L	NG	0.06	0.09		<0.01	–	<0.01	<0.01	–		<0.01	–	–	<0.01	<0.01	<0.01	–	<0.01	<0.01			<0.01	–
Total Kjeldahl Nitrogen	mg/L	NG	NG	2		0.8	–	0.2	1	–		7	0.4	–	1.6	1.0	2.2	–	79.0	0.8			1.0	–
pH	UNITS	NG	6.5 - 9.0	7.39		6.16	–	7.02	7.03	–		7.27	6.94	–	6.95	6.61	7.26	–	7.04	6.97			7.34	7.34
Total Phosphorus	mg/L	NG	Narrative	0.19		0.07	0.07	0.02	0.04	0.04		<0.1	0.03	–	0.29	0.14	0.8	–	7.4	0.05			0.10	–
Total Suspended Solids (TSS)	mg/L	NG	Narrative	5.6		4	–	7	6	–		41	10	–	10	27	28	70	910	5			26	–
Total Dissolved Solids (TDS)	mg/L	NG	NG	130		30	–	150	99	–		140	73	–	170	110	<60	–	–	46			84	–
Sulfate	mg/L	NG	NG	12		<2	<2	<2	<2.0	–		6	<1	–	<7	<2	<2	–	4	<1			6.5	–
Zinc	µg/L	30	30	8.7		<5	–	11	6	–		<5	7	7	6	11	8	–	11	10.7			<5	–
Carbonaceous BOD	mg/L	NG	NG	<5		<5	–	<5	<5.0	–		230	<5	–	12	8	14	–	18	<5			<5	–
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	47		23	–	22	64	–		430	30	–	100	84	100	–	200	61			34	–
Total Organic Carbon	mg/L	NG	NG	12		5.0	–	5	14	–		11	7.8	–	16	13	15(1)	–	14	14			9.0(1)	–
Phenol	mg/L	0.004	0.004	<0.001		<0.001	–	0.001	<0.001	–		<0.001	0.001	–	<0.001	0.002	0.003(2)	–	0.004	0.002			[illegible]	–
Tannins/Lignins	mg/L	NG	NG	3.6		1.8	–	1.3	2.8	–		1.0	2	7	5.6	2.47	2.4	–	NA	2.1			1.2	–

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not available
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - [illegible] reported by lab [illegible]
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.
(3) The sample was decanted due to sediment.

[1] Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014).
[2] Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014).
[3] Guideline for ammonia at a temperature of 15°C and pH of 7.5.
[4] At [$CaCO_3$] <8 to <17 mg/L, cadmium guideline = 0.04 µg/L.
At [$CaCO_3$] ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation [illegible]
[5] At [$CaCO_3$] = 0 to 120 mg/L, copper guideline = 2 mg/L.
[6] At [$CaCO_3$] = 0 to 60 mg/L, lead guideline = 1 mg/L.
At [$CaCO_3$] = 60 to 120 mg/L, lead guideline = 2 mg/L.

Table 2: Surface Water Analytical Results
Client: AIM Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011638-0-01-201

Parameter	Units	NSE Surface Water[1]	CCME Freshwater Aquatic Life Guidelines[2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alkalinity (Total as $CaCO_3$)	mg/L	NG	NG	13	Frozen/ Snow Covered	29	7.8	–	22	–	23	30	–	15	-
Ammonia	mg/L	NG	[illegible][3]	0.063		0.13	<0.050	–	<0.050	–	0.29	<0.050	–	<0.050	<0.050
Arsenic	µg/L	5	5.0	<1.0		1.7	<1.0	–	1.2	–	<1.0	<1.0	–	2.0	-
Barium	µg/L	1000	NG	8.1		14	19	–	13	–	17	25	–	35	-
Boron	µg/L	1200	1500	<50		<50	<50	–	<50	–	<50	<50	–	<50	-
Cadmium	µg/L	0.01	Equation[4]	<0.017		0.018	0.022	–	0.032	–	0.025	0.023	–	[illegible]	-
Chloride	mg/L	NG	120	12		22	4.8	–	16	–	22	21	–	15	-
Chromium	µg/L	NG	NG	<1		1.4	<1.0	–	7.5	–	1.5	<1.0	–	19	-
Conductivity (EC-25)	µS/cm	NG	NG	100		120	22	–	110	110	110	120	–	67	-
Copper	µg/L	2	2 to 4[5]	[illegible]		[illegible]	[illegible]	–	[illegible]	–	[illegible]	[illegible]	–	[illegible]	-
Iron	µg/L	300	300	[illegible]		[illegible]	[illegible]	–	[illegible]	–	[illegible]	[illegible]	–	[illegible]	-
Lead	µg/L	1	1 to 7[6]	0.01		0.01	0.08	–	[illegible]	–	[illegible]	0.05	–	[illegible]	-
Mercury	µg/L	0.026	0.026	<0.013		<0.013	<0.013	–	<0.013	–	<0.013	<0.013	–	0.023	-
Nitrate (as N)	mg/L	NG	13.0	<0.050		<0.050	<0.050	–	<0.050	–	<0.050	<0.050	–	<0.050	-
Nitrite	mg/L	NG	0.06	<0.01		<0.010	<0.010	–	<0.010	–	0.012	<0.010	–	<0.010	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	0.47		1.4	0.76	–	0.90	–	1.3	1.2	–	0.9	-
pH	units	NG	6.5 - 9.0	6.94		6.67	[illegible]	–	6.26	6.81	6.81	6.15	–	6.83	-
Total Phosphorus	mg/L	NG	Narrative	0.075		210	0.020	–	210	–	220	0.020	–	0.370	-
Total Suspended Solids (TSS)	mg/L	NG	Narrative	3.2		<5	8.2	–	25	–	[illegible]	4.8	–	87	-
Total Dissolved Solids (TDS)	mg/L	NG	NG	66		110	53	–	97	–	63	100	–	69	-
Sulfate	mg/L	NG	NG	2.8		<2.0	<2.0	–	<2.0	–	14	<2.0	–	<2.0	-
Zinc	µg/L	30	30	8.5		18	13	–	[illegible]	–	[illegible]	14	–	[illegible]	-
Carbonaceous BOD	mg/L	NG	NG	<5		11	<5.0	–	5.9	–	8.8	<5	–	<5.0	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	37		59	31	–	62	–	60	78	–	330	-
Total Organic Carbon	mg/L	NG	NG	12		13 (1)	7.7	–	8.1 (1)	–	18	18	–	16 (1)	-
Phenol	mg/L	0.004	0.004	0.002		[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	0.001	<0.0010	<0.0010	-
Tannin/Lignin	mg/L	NG	NG	3		4	2.2	–	2.0	–	2.1	3.0	–	2.5	1.0

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not available
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - anomalous result; [illegible]
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.
(3) The sample was discoloured due to sediment.

[1] Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014)
[2] Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014)
[3] Guideline for ammonia at a temperature of 10°C and pH of 7.0.
[4] At [$CaCO_3$] <0 to <17 mg/L, cadmium guideline = 0.04 µg/L.
At [$CaCO_3$] ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation 10{0.83[log(hardness)] – 2.46}
[5] At [$CaCO_3$] = 0 to 120 mg/L, copper guideline = 2 mg/L.
[6] At [$CaCO_3$] = 0 to 60 mg/L, lead guideline = 1 mg/L.
At [$CaCO_3$] = 60 to 120 mg/L, lead guideline = 2 mg/L.

Table 2 continued: Surface Water Analytical Results
Client: [illegible] Environmental
Site: Composting Facility, [illegible] Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-[illegible]

Parameter	Units	NSE Surface Water[1]	CCME Freshwater Aquatic Life[2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alkalinity (Total, as $CaCO_3$)	mg/L	NG	NG			11	30	–			130		66	60	75	–	36	–	<5	–	41	–
Ammonia	mg/L	NG	[illegible]			<0.05	<0.05	–			<0.05		0.12	<0.05	<0.05	–	0.17	–	<0.05	–	<0.05	–
Arsenic	µg/L	5	5.0			<2	<2	–			<2		<2	<2	2	–	<1	–	1.4	–	13	–
Barium	µg/L	1000	NG			4.0	41	–			27		17	16	13	–	1	–	20.8	–	15	–
Boron	µg/L	1200	NG			1.8	8.8	–			15		15	9	10	–	9	–	<50	–	150	–
Cadmium	µg/L	0.01	Equation[4]			<0.3	<0.3	–			<0.3		<0.3	<0.3	<0.02	–	<0.02	–	[illegible]	–	<0.017	–
Chloride	mg/L	NG	120			7.0	190	–			45		25	46	160	–	46	–	3	–	45	–
Chromium	µg/L	NG	NG			<2	3.8	–			<2		<2	<2	<1	–	<1	–	1.1	–	1.1	–
Conductivity (RCAp)	µS/cm	NG	NG			84	850	–			1000		1000	360	750	–	270	–	30	–	380	380
Copper	µg/L	2	2 to 4[5]			<2	<2	–			2		2	<2	2	–	<2	–	[illegible]	–	[illegible]	–
Iron	µg/L	300	300			[illegible]	210	–			[illegible]		[illegible]	[illegible]	[illegible]	–	270	–	[illegible]	–	[illegible]	–
Lead	µg/L	1	1 to 7[6]			0.7	<0.5	–			<0.5		0.7	<0.5	<0.5	–	<0.1	–	[illegible]	–	[illegible]	–
Mercury	µg/L	0.026	0.026	Dry	Frozen Snow Covered	<0.01	<0.01	–	Dry	Frozen Snow Covered	[illegible]	Frozen Snow Covered	0.022	0.019	<0.014	–	<0.013	<0.013	0.017	–	<0.013	–
Nitrate (as N)	mg/L	NG	13.0			<0.05	0.51	–			<0.05		0.1	1.57	<0.05	–	<0.05	–	<0.05	–	<0.05	–
Nitrite	mg/L	NG	0.06			<0.01	<0.01	–			<0.01		0.01	0.01	<0.01	–	<0.01	–	<0.01	–	<0.01	–
Total Kjeldahl Nitrogen	mg/L	NG	NG			1	8.5	–			1.0		1.6	4.2	5.0	–	2.1	–	1.5	–	2.8	–
pH	units	NG	6.5 - 9.0			[illegible]	7.20	–			7.50		7.20	7.01	7.18	–	7.52	–	[illegible]	–	7.5	7.21
Total Phosphorus	mg/L	NG	Narrative			0.08	0.15	–			<0.1		<1	0.04	0.06	0.09	0.19	–	0.05	0.05	0.12	–
Total Suspended Solids (TSS)	mg/L	NG	Narrative			9.0	3.0	–			420		1000	38	30	–	160	–	8	–	180	–
Total Dissolved Solids (TDS)	mg/L	NG	NG			110	290	130			580		610	520	280	–	210	–	40	–	200	–
Sulfate	mg/L	NG	NG			<2	11	–			8		45	12	57	–	12	–	<2	–	12	–
Zinc	µg/L	30	30			5	8	–			<5		13	<5	<5	–	<5	–	14.8	–	10.1	–
Carbonaceous BOD	mg/L	NG	NG			<5	<5	–			240		7	<5	22	–	5	–	<5	–	5	–
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG			52	14	11			280		440	13	87	–	17	–	31	–	130	–
Total Organic Carbon	mg/L	NG	NG			11	8	–			73		17	8.8	13	–	15	–	27	–	4.1	–
Phenol	mg/L	0.004	0.004			<0.001	0.001	–			<0.001		<0.001	0.001	0.00027	–	0.015	–	[illegible]	–	<0.001	–
Tannin and Lignin	mg/L	NG	NG			3.5	5.4	–			4.2		1.7	0.80	1.1	–	0.6	–	6.5	–	5.2	–

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not available
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS
[1]Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014).
[2]Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014)
[3]Guideline for ammonia at a temperature of 15°C and pH of 7.5
[4]At [$CaCO_3$] <0 to <17 mg/L, cadmium guideline = 0.04 µg/L.
At [$CaCO_3$] ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation 10[illegible]
[5]At [$CaCO_3$] = 0 to 120 mg/L, copper guideline = 2 mg/L.
[6]At [$CaCO_3$] = 0 to 60 mg/L, lead guideline = 1 mg/L.
At [$CaCO_3$] = 60 to 120 mg/L, lead guideline = 2 mg/L.

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - anomalous result: mercury contamination later reported by lab in sample containers.
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.
(3) The sample was diluted due to sediment.

Table 2 continued: Surface Water Analytical Results
Client: AJI Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011639-0-01-201

Parameter	Units	NSEQS for Surface Water[1]	CCME Freshwater Aquatic Life Guidelines[2]	2022 [illegible]	2022 [illegible]	2023 [illegible]	2023 [illegible]	2023 [illegible]	2023 [illegible]	2024 [illegible]	2024 [illegible]	2024 [illegible]	2024 [illegible]	2024 [illegible]	2024 [illegible]	2025 [illegible]	2025 [illegible]	2025 [illegible]
Alkalinity (Total, as $CaCO_3$)	mg/L	NG	NG	6.7	<6	8.8	–	7	–	<5	<5	7	–	17	<6	17	–	10
Ammonia	mg/L	varies[3]	varies[3]	<0.05	1.2	<0.05	<0.05	[illegible]	–	<0.05	–	0.04	–	[illegible]	[illegible]	0.05	–	[illegible]
Arsenic	µg/L	5	5	<2	<2	<2	–	<2	–	<2	–	<2	<2	<2	<2	<2	–	<2
Barium	µg/L	1000	NG	5.1	10.8	8.8	–	27	–	12	–	14	16	7	<3	<1	–	8
Boron	µg/L	1200	1500	7.7	7.6	7.2	–	8.8	–	9	–	8	8	7	7	7	–	6
Cadmium	µg/L	0.01	Equation[4]	<0.2	<0.2	<0.2	–	<0.1	–	<0.2	–	<0.3	<0.3	<0.1	<0.3	<0.1	–	<0.1
Chloride	mg/L	120	120	15	12	9.7	–	[illegible]	–	16	19	79	–	39	17	29	–	91
Chromium	µg/L	NG	NG	<2	<2	<2	–	[illegible]	–	2	–	<2	<2	<2	<2	<2	–	<2
Conductivity (RCAp)	µS/cm	NG	NG	64	106	64	–	290	–	123	129	780	–	[illegible]	[illegible]	110	–	100
Copper	µg/L	2	2 to 4[5]	<2	<2	<2.0	–	<2	–	<2	–	<2	<2	<2	<2	<2	–	<2
Iron	µg/L	300	300	200	110	[illegible]	–	230	–	172	–	190	[illegible]	[illegible]	300	200	–	[illegible]
Lead	µg/L	1	1 to 7[6]	0.7	0.7	[illegible]	–	0.8	–	0.6	–	0.6	0.8	0.4	0.9	0.8	–	0.5
Mercury	µg/L	0.026	0.026	<0.026	<0.01	<0.026	–	<0.01	–	0.01	–	<0.01	–	[illegible]	0.02	<0.013	–	0.027
Nitrate (as N)	mg/L	13	13	0.14	[illegible]	0.14	–	[illegible]	–	[illegible]	–	–	–	[illegible]	–	0.37	–	0.24
Nitrite	mg/L	0.06	0.06	<0.01	[illegible]	<0.01	–	0.02	–	<0.01	<0.01	–	–	[illegible]	–	<0.01	–	<0.01
Total Kjeldahl Nitrogen	mg/L	NG	NG	1	2	1.2	–	2	–	1.3	–	1.0	–	[illegible]	1.1	0.8	0.5	0.8
pH	UNITS	6.5 - 9.0	6.5 - 9.0	7.31	6.80	[illegible]	–	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	6.73	–	6.68
Total Phosphorus	mg/L	NG	Narrative	0.05	0.06	0.07	–	0.06	–	0.04	–	0.04	–	[illegible]	0.05	0.15	–	0.05
Total Suspended Solids (TSS)	mg/L	NG	Narrative	2.5	8.8	30	71	7	–	87	–	5	–	10	7	6	–	1
Total Dissolved Solids (TDS)	mg/L	NG	NG	37.2	78.8	80	44	370	–	73	–	144	–	100	31	71	91	130
Sulfide	mg/L	NG	NG	<2	<2	<2	–	<2	–	<2	<2	<2	–	<2	<2	<2	–	<2
Zinc	µg/L	30	30	5.8	11	<5.0	–	16	–	9	–	11	16	<5	7	5	–	5
Carbonaceous BOD	mg/L	NG	NG	<6	<6	<6	–	<6	–	<6	–	<6	–	4	<6	<6	–	<6
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	41	26	79	–	40	–	51	51	53	–	66	61	62	–	51
Total Organic Carbon	mg/L	NG	NG	11	12	17	–	11	–	14	–	12	–	15	10	13	–	10
Phenol	mg/L	0.004	0.004	<0.001	<0.001	<0.001	–	<0.001	–	<0.001	–	<0.001	–	<0.001	<0.001	<0.001	–	0.001
Tannins and Lignins	mg/L	NG	NG	4.8	2.9	4.8	–	2.5	–	2.8	–	2	–	8.2	4.8	2.6	–	2.03

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not available
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS
[1] Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014).
[2] Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014).
[3] Guidelines for ammonia at a temperature of 15°C and pH of 7.5.
[4] At $[CaCO_3]$ <0 to <17 mg/L, cadmium guideline = 0.04 µg/L.
At $[CaCO_3]$ ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation 10{0.83(log[hardness]) - 2.46}
[5] At $[CaCO_3]$ = 0 to 120 mg/L, copper guideline = 2 mg/L.
[6] At $[CaCO_3]$ = 0 to 60 mg/L, lead guideline = 1 mg/L.
At $[CaCO_3]$ = 60 to 120 mg/L, lead guideline = 2 mg/L.

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - anomalous result: mercury contamination later reported by lab in sample containers
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.
(3) The sample was decanted due to sediment.

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Table 2 continued: Surface Water Analytical Results
Client: AIS Environmental
Site: Composting Facility, 51 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011638-0-01-201

Parameter	Units	NSE EQS for Surface Water	CCME Freshwater Aquatic Life	2018 10-Sep	2018 9-Oct	[illegible]	[illegible]	[illegible] Lab Dup	[illegible]	[illegible]	[illegible] Lab Dup	[illegible]	[illegible] Lab Dup	[illegible]	[illegible]	11-Dec
Alkalinity (Total, as $CaCO_3$)	mg/L	NG	NG	8	6	6	7	–	<5	<5	–	8.4	–	<5	8.2	<5.0
Ammonia	mg/L	varies[3]	varies[3]	<0.05	0.07	<0.05	<0.05	–	<0.05	<0.05	–	0.11	–	0.066	0.064	0.10
Arsenic	µg/L	5	5	<1	<1	<1.0	<1.0	–	<1.0	<1	–	<1.0	–	<1	<1.0	<1.0
Barium	µg/L	1000	NG	4	2	4.6	4	–	3.2	5.6	–	6.1	–	12	5.3	3.3
Boron	µg/L	1200	1500	11	8	<50	<50	–	<50	<50	–	<50	–	<50	<50	<50
Cadmium	µg/L	0.01	Equation[4]	<0.01	<0.01	[illegible]	[illegible]	–	[illegible]	[illegible]	–	[illegible]	–	[illegible]	[illegible]	0.021
Chloride	mg/L	120	120	13	14	7	11	–	23	8.8	–	17	–	[illegible]	16	8.4
Chromium	µg/L	NG	NG	<1	<1	<1.0	<1.0	–	<1	<1	–	<1	–	<1	<1.0	<1.0
Conductance (RCAp)	µS/cm	NG	NG	55	59	47	58	–	34	33	–	42	–	470	55	39
Copper	µg/L	2	2 to 4[5]	<2	<2	<2.0	<2.0	–	<2	<2	–	<2	–	<2	<2.0	<2.0
Iron	µg/L	300	300	[illegible]	[illegible]	[illegible]	[illegible]	–	[illegible]	[illegible]	–	[illegible]	–	780	[illegible]	320
Lead	µg/L	1	1 to 7[6]	0.8	0.6	[illegible]	0.78	–	0.99	[illegible]	–	[illegible]	–	0.84	[illegible]	0.79
Mercury	µg/L	0.026	0.026	<0.013	<0.013	0.217	<0.013	–	0.217	0.018	–	<0.013	–	<0.013	0.022	<0.013
Nitrate (as N)	mg/L	13	13	0.13	0.13	<0.05	0.05	–	0.12	0.056	–	0.083	–	0.08	0.073	<0.050
Nitrite	mg/L	0.06	0.06	<0.01	<0.01	<0.01	<0.01	–	<0.01	<0.01	–	<0.01	–	<0.01	<0.010	<0.010
Total Kjeldahl Nitrogen	mg/L	NG	NG	0.6	0.5	0.8	0.4	–	0.78	0.88	–	0.82	–	0.44	0.73	0.46
pH	UNITS	6.5 - 9.0	6.5 - 9.0	6.67	[illegible]	[illegible]	[illegible]	–	6.79	[illegible]	–	[illegible]	–	[illegible]	6.24	[illegible]
Total Phosphorus	mg/L	NG	Narrative	0.07	0.04	0.07	0.04	–	0.045	0.026	–	0.066	–	<0.01	<100	0.052
Total Suspended Solids (TSS)	mg/L	NG	Narrative	7	3	6	1	–	2.4	NA	–	1.8	–	3.7	7.0	4.2
Total Dissolved Solids (TDS)	mg/L	NG	NG	<10	26	12	74	–	190	67	–	46	–	290	120	33
Sulfate	mg/L	NG	NG	<2	<2	<2	<2	–	<2	2.7	–	<2	–	<2	<2.0	<2.0
Zinc	µg/L	20	30	5	6	<5.0	6.9	–	5.2	11.2	–	9.6	–	12	7.6	12
Carbonaceous BOD	mg/L	NG	NG	<5	<5	<5	<5	–	<5	6.7	–	<5	–	<5	<5.0	<5.4
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	53	50	66	32	38	51	49	45	60	64	36	71	48
Total Organic Carbon	mg/L	NG	NG	10	14	27	12	–	18	19 (2)	–	20	–	6.9	24 (2)	9.2 (2)
Phenols	mg/L	0.004	0.004	0.002	0.005	[illegible]	<0.001	–	0.0079	[illegible]	–	[illegible]	–	<0.005 (2)	[illegible]	[illegible]
Tannins/Lignins	mg/L	NG	NG	4.3	NA	5	2.6	–	3.5	4	–	5	–	1.8	7	2.8

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not applicable
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS
[1] Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014).
[2] Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014)
[3] Guideline for ammonia at a temperature of 15C and pH of 7.5
[4] At [$CaCO_3$] = 0 to <17 mg/L, cadmium guideline = 0.04 µg/L.
At [$CaCO_3$] ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation 10^(0.83(log[hardness]) - 2.46)
[5] At [$CaCO_3$] = 0 to 120 mg/L, copper guideline = 2 mg/L.
[6] At [$CaCO_3$] = 0 to 60 mg/L, lead guideline = 1 mg/L.
At [$CaCO_3$] = 60 to 120 mg/L, lead guideline = 2 mg/L.

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - anomalous [illegible] mercury concentration [illegible] reported by lab in sample [illegible]
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.
(3) The sample was decanted due to sediment.

Table 2 continued: Surface Water Analytical Results
Client: AMI Environmental
Site: Composting Facility, 61 Evergreen Place, Goodwood, Nova Scotia
Englobe Project No. P-0011535-0-01-301

Parameter	Units	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alkalinity (Total as $CaCO_3$)	mg/L	NG	NG	8.5	12	-	<5.0	11	-
Ammonia	mg/L	varies[7]	varies[7]	0.2	0.098	-	<0.050	<0.050	-
Arsenic	µg/L	5	5	<1.0	<1.0	-	<1.0	<1.0	-
Barium	µg/L	1000	NG	4.7	9.2	-	9	3.2	-
Boron	µg/L	1200	1500	<50	<50	-	<50	<50	-
Cadmium	µg/L	0.09	Equation[4]	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Chloride	mg/L	120	120	17	[illegible]	-	11	12	-
Chromium	µg/L	NG	NG	<1.0	<1.0	-	<1.0	<1.0	-
Conductivity (EC/µS)	µS/cm	NG	NG	87	[illegible]	-	[illegible]	73	73
Copper	µg/L	2	2 to 4[5]	<2.0	<2.0	-	<2.0	<2.0	-
Iron	µg/L	300	300	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Lead	µg/L	1	1 to 7[6]	[illegible]	[illegible]	-	[illegible]	[illegible]	-
[illegible]	µg/L	0.026	0.026	[illegible]	<0.013	-	[illegible]	<0.013	-
Nitrate (as N)	mg/L	13	13	0.11	0.17	-	[illegible]	[illegible]	-
Nitrite	mg/L	0.06	0.06	<0.010	[illegible]	-	<0.010	<0.010	-
Total Kjeldahl Nitrogen	mg/L	NG	NG	[illegible]	0.44	-	[illegible]	[illegible]	-
pH	units	6.5 - 9.0	6.5 - 9.0	[illegible]	[illegible]	-	[illegible]	[illegible]	[illegible]
Total Phosphorus	mg/L	NG	Narrative	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Total Suspended Solids (TSS)	mg/L	NG	Narrative	<1.0	<1.0	-	1	[illegible]	-
Total Dissolved Solids (TDS)	mg/L	NG	NG	[illegible]	[illegible]	-	[illegible]	[illegible]	-
Sulfate	mg/L	NG	NG	<2.0	[illegible]	-	<2.0	<2.0	-
Zinc	µg/L	30	30	14	[illegible]	-	[illegible]	<5.0	-
Biochemical Oxygen Demand BOD	mg/L	NG	NG	<5.0	<5.0	-	<5.0	<5.0	-
Chemical Oxygen Demand (COD as O_2)	mg/L	NG	NG	[illegible]	31	-	[illegible]	[illegible]	-
Total Organic Carbon	mg/L	NG	NG	[illegible] (1)	17	-	[illegible] (1)	12	-
Phenol	mg/L	0.004	0.004	[illegible]	[illegible]	[illegible]	<0.0010	<0.0010	-
Tannins and Lignins	mg/L	NG	NG	[illegible]	2.4	-	[illegible]	2.4	-

Notes:
AO - Aesthetic Objective
MAC - Maximum Acceptable Concentration
NG - no guideline
NA - not available
PREVIOUS DATA HAVE NOT BEEN RE-EVALUATED UNDER GUIDELINE REVISIONS

value - exceeds NSE Surface water guideline
value - exceeds CCME freshwater aquatic life guidelines
value - exceeds both CCME and NSE guidelines

value - [illegible]
(1) Reporting limit was increased due to turbidity.
(2) [illegible]
(3) The sample was [illegible] due to sediment.

[1] Criteria taken from the Nova Scotia Environment (NSE) Environmental Quality Standards (EQS) for freshwater surface water (Update 2014).
[2] Criteria taken from the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (Update 2014).
[3] Guideline for ammonia at a temperature of 15°C and pH of 7.0.
[4] At [$CaCO_3$] <4 to <17 mg/L, cadmium guideline = [illegible] µg/L.
At [$CaCO_3$] ≥ 17 to ≤280 mg/L, cadmium guideline is calculated using the equation [illegible]
[5] At [$CaCO_3$] = 0 to 120 mg/L, copper guideline = 2 µg/L.
[6] At [$CaCO_3$] = 0 to 60 mg/L, lead guideline = 1 µg/L.
At [$CaCO_3$] = 60 to 120 mg/L, lead guideline = 2 µg/L.

Appendix 3 Laboratory Certificates

Maxxam
A Bureau Veritas Group Company

Success Through Science

Your P.O. #: A07332
Your Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your C.O.C. #: 589040-01-01, 589040-02-01

Attention:Aven Cole

Englobe Corp.
97 Troop Ave
Dartmouth, NS
CANADA B3B 2A7

Report Date: 2016/12/19
Report #: R4293759
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6Q5928
Received: 2016/12/06, 16:52

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Carbonate, Bicarbonate and Hydroxide	4	N/A	2016/12/09	N/A	SM 22 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	6	N/A	2016/12/10	N/A	SM 22 4500-CO2 D
Alkalinity	9	N/A	2016/12/15	ATL SOP 00013	EPA 310.2 R1974 m
Alkalinity	1	N/A	2016/12/16	ATL SOP 00013	EPA 310.2 R1974 m
Carbonaceous BOD	2	2016/12/07	2016/12/12	ATL SOP 00041	SM 22 5210B m
Chloride	10	N/A	2016/12/16	ATL SOP 00014	SM 22 4500-Cl- E m
Chemical Oxygen Demand (COD)	5	N/A	2016/12/09	ATL SOP 00042	SM 22 5220D m
Chemical Oxygen Demand (COD)	4	N/A	2016/12/12	ATL SOP 00042	SM 22 5220D m
TC/EC Drinking Water CFU/100mL	1	N/A	2016/12/07	ATL SOP 00096	OMOE E3407 V5.2
Colour	10	N/A	2016/12/15	ATL SOP 00020	SM 22 2120C m
Organic carbon - Diss (DOC) (2)	7	N/A	2016/12/15	ATL SOP 00037	SM 22 5310C m
Conductance - water	10	N/A	2016/12/10	ATL SOP 00004	SM 22 2510B m
Hardness (calculated as CaCO3)	10	N/A	2016/12/09	ATL SOP 00048	SM 22 2340 B
Mercury - Total (CVAA,LL)	8	2016/12/13	2016/12/14	ATL SOP 00026	EPA 245.1 R3 m
Metals Water Diss. MS (3)	7	N/A	2016/12/08	ATL SOP 00058	EPA 6020A R1 m
Metals Water Total MS	3	2016/12/08	2016/12/08	ATL SOP 00058	EPA 6020A R1 m
Ion Balance (% Difference)	10	N/A	2016/12/17	N/A	Auto Calc.
Anion and Cation Sum	10	N/A	2016/12/15	N/A	Auto Calc.
Nitrogen Ammonia - water	10	N/A	2016/12/15	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen - Nitrate + Nitrite	10	N/A	2016/12/15	ATL SOP 00016	USGS SOPINCF0452.2 m
Nitrogen - Nitrite	10	N/A	2016/12/19	ATL SOP 00017	SM 22 4500-NO2- B m
Nitrogen - Nitrate (as N)	10	N/A	2016/12/19	ATL SOP 00018	ASTM D3867-16
Phenols (4-AAP)	4	N/A	2016/12/13	ATL SOP 00039	EPA 420.2 m
Phenols (4-AAP)	4	N/A	2016/12/14	ATL SOP 00039	EPA 420.2 m
pH (4)	4	N/A	2016/12/09	ATL SOP 00003	SM 22 4500-H+ B m
pH (4)	6	N/A	2016/12/10	ATL SOP 00003	SM 22 4500-H+ B m
Phosphorus - ortho	10	N/A	2016/12/16	ATL SOP 00021	EPA 365.2 m
Sat. pH and Langelier Index (@ 20C)	2	N/A	2016/12/16	ATL SOP 00049	Auto Calc.
Sat. pH and Langelier Index (@ 20C)	8	N/A	2016/12/17	ATL SOP 00049	Auto Calc.
Sat. pH and Langelier Index (@ 4C)	2	N/A	2016/12/16	ATL SOP 00049	Auto Calc.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Your P.O. #: A07332
Your Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your C.O.C. #: 589040-01-01, 589040-02-01

Attention:Aven Cole

Englobe Corp.
97 Troop Ave
Dartmouth, NS
CANADA B3B 2A7

Report Date: 2016/12/19
Report #: R4293759
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6Q5928
Received: 2016/12/06, 16:52

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Sat. pH and Langelier Index (@ 4C)	8	N/A	2016/12/17	ATL SOP 00049	Auto Calc.
Reactive Silica	10	N/A	2016/12/15	ATL SOP 00022	EPA 366.0 m
Sulphate	10	N/A	2016/12/16	ATL SOP 00023	ASTMD516-11 m
Tannins & Lignins (1)	2	N/A	2016/12/08	CAM SOP-00410	SM 22 5550 B m
Total Dissolved Solids (Filt. Residue)	2	2016/12/13	2016/12/15	ATL SOP 00009	SM 22 2540C m
Total Dissolved Solids (TDS calc)	10	N/A	2016/12/17	N/A	Auto Calc.
Total Kjeldahl Nitrogen in Water (1)	6	2016/12/09	2016/12/15	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water (1)	2	2016/12/09	2016/12/16	CAM SOP-00938	OMOE E3516 m
Organic carbon - Total (TOC) (2)	10	N/A	2016/12/15	ATL SOP 00037	SM 22 5310C m
Phosphorus Total Colourimetry	8	2016/12/12	2016/12/14	ATL SOP 00057	EPA 365.1 R2 m
Total Suspended Solids	9	2016/12/13	2016/12/15	ATL SOP 00007	SM 22 2540D m
Turbidity	4	N/A	2016/12/13	ATL SOP 00011	EPA 180.1 R2 m
Turbidity	6	N/A	2016/12/14	ATL SOP 00011	EPA 180.1 R2 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods. Results relate to samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

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Maxxam
A Bureau Veritas Group Company

Your P.O. #: A07332
Your Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your C.O.C. #: 589040-01-01, 589040-02-01

Attention:Aven Cole

Englobe Corp.
97 Troop Ave
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Report Date: 2016/12/19
Report #: R4293759
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CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6Q5928
Received: 2016/12/06, 16:52

(1) This test was performed by Maxxam Analytics Mississauga
(2) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC.
(3) Sample filtered in laboratory prior to analysis for dissolved metals.
(4) The APHA Standard Method require pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the APHA Standard Method holding time.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Avery Withrow, Project Manager
Email: AWithrow@maxxam.ca
Phone# (902)420-0203 Ext:233

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATL. RCAP-MS DISSOLVED (LABFILT) IN W

Maxxam ID		DOU935		DOU936			DOU937			
Sampling Date		2016/12/06 12:00		2016/12/06 13:00			2016/12/06 12:30			
COC Number		589040-01-01		589040-01-01			589040-01-01			
	UNITS	MW1R	RDL	MW2	RDL	QC Batch	MW3	RDL	QC Batch	MDL
Calculated Parameters										
Anion Sum	me/L	3.19	N/A	28.7	N/A	4781811	8.92	N/A	4781811	N/A
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	150	1.0	490	1.0	4781808	180	1.0	4781808	0.20
Calculated TDS	mg/L	170	1.0	1600	1.0	4781816	480	1.0	4781816	0.20
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	1.0	2.7	1.0	4781808	<1.0	1.0	4781808	0.20
Cation Sum	me/L	3.23	N/A	28.3	N/A	4781811	8.45	N/A	4781811	N/A
Hardness (CaCO3)	mg/L	140	1.0	720	1.0	4781809	380	1.0	4781809	1.0
Ion Balance (% Difference)	%	0.620	N/A	0.630	N/A	4781810	2.71	N/A	4781810	N/A
Langelier Index (@ 20C)	N/A	0.519		1.24		4781814	0.145		4781814	
Langelier Index (@ 4C)	N/A	0.269		0.996		4781815	-0.103		4781815	
Nitrate (N)	mg/L	0.12	0.050	<0.050	0.050	4781812	0.052	0.050	4781812	N/A
Saturation pH (@ 20C)	N/A	7.57		6.52		4781814	7.14		4781814	
Saturation pH (@ 4C)	N/A	7.82		6.77		4781815	7.39		4781815	
Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	150	25	490	25	4793706	180	25	4793706	N/A
Dissolved Chloride (Cl)	mg/L	5.0	1.0	650	5.0	4793708	190	1.0	4793708	N/A
Colour	TCU	<5.0	5.0	43	5.0	4793713	<5.0	5.0	4793713	N/A
Nitrate + Nitrite (N)	mg/L	0.12	0.050	<0.050	0.050	4793715	0.052	0.050	4793715	N/A
Nitrite (N)	mg/L	<0.010	0.010	<0.010	0.010	4793716	<0.010	0.010	4793716	N/A
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	13	0.75	4791793	0.059	0.050	4791793	N/A
Total Organic Carbon (C)	mg/L	<5.0 (1)	5.0	53 (2)	5.0	4793697	<5.0 (1)	5.0	4793697	N/A
Orthophosphate (P)	mg/L	0.071	0.010	0.019	0.010	4793714	0.022	0.010	4793714	N/A
pH	pH	8.09	N/A	7.76	N/A	4785636	7.29	N/A	4785636	N/A
Reactive Silica (SiO2)	mg/L	10	0.50	21	0.50	4793711	19	0.50	4793711	N/A
Dissolved Sulphate (SO4)	mg/L	<2.0	2.0	22	2.0	4793710	3.2	2.0	4793710	N/A
Turbidity	NTU	100	1.0	14	0.10	4789758	460	1.0	4791712	0.10
Conductivity	uS/cm	280	1.0	2800	1.0	4785637	870	1.0	4785637	N/A
Metals										
Dissolved Aluminum (Al)	ug/L	6.9	5.0	6.9	5.0	4783732	5.1	5.0	4783732	N/A
Dissolved Antimony (Sb)	ug/L	<1.0	1.0	<1.0	1.0	4783732	<1.0	1.0	4783732	N/A
Dissolved Arsenic (As)	ug/L	1.4	1.0	8.6	1.0	4783732	2.0	1.0	4783732	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Reporting limit was increased due to turbidity.
(2) Elevated reporting limit due to sample matrix.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATL. RCAP-MS DISSOLVED (LABFILT) IN W

Maxxam ID		DOU935		DOU936			DOU937			
Sampling Date		2016/12/06 12:00		2016/12/06 13:00			2016/12/06 12:30			
COC Number		589040-01-01		589040-01-01			589040-01-01			
	UNITS	MW1R	RDL	MW2	RDL	QC Batch	MW3	RDL	QC Batch	MDL
Dissolved Barium (Ba)	ug/L	58	1.0	300	1.0	4783732	100	1.0	4783732	N/A
Dissolved Beryllium (Be)	ug/L	<1.0	1.0	<1.0	1.0	4783732	<1.0	1.0	4783732	N/A
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0	<2.0	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Boron (B)	ug/L	<50	50	130	50	4783732	<50	50	4783732	N/A
Dissolved Cadmium (Cd)	ug/L	<0.010	0.010	<0.010	0.010	4783732	0.029	0.010	4783732	N/A
Dissolved Calcium (Ca)	ug/L	43000	100	250000	100	4783732	120000	100	4783732	N/A
Dissolved Chromium (Cr)	ug/L	<1.0	1.0	<1.0	1.0	4783732	<1.0	1.0	4783732	N/A
Dissolved Cobalt (Co)	ug/L	<0.40	0.40	1.1	0.40	4783732	<0.40	0.40	4783732	N/A
Dissolved Copper (Cu)	ug/L	<2.0	2.0	<2.0	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Iron (Fe)	ug/L	<50	50	76	50	4783732	<50	50	4783732	N/A
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<0.50	0.50	4783732	<0.50	0.50	4783732	N/A
Dissolved Magnesium (Mg)	ug/L	7200	100	22000	100	4783732	22000	100	4783732	N/A
Dissolved Manganese (Mn)	ug/L	3.0	2.0	2900	2.0	4783732	42	2.0	4783732	N/A
Dissolved Molybdenum (Mo)	ug/L	2.2	2.0	3.6	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Nickel (Ni)	ug/L	<2.0	2.0	15	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Phosphorus (P)	ug/L	<100	100	<100	100	4783732	<100	100	4783732	N/A
Dissolved Potassium (K)	ug/L	1600	100	18000	100	4783732	2100	100	4783732	N/A
Dissolved Selenium (Se)	ug/L	<1.0	1.0	<1.0	1.0	4783732	<1.0	1.0	4783732	N/A
Dissolved Silver (Ag)	ug/L	<0.10	0.10	<0.10	0.10	4783732	<0.10	0.10	4783732	N/A
Dissolved Sodium (Na)	ug/L	11000	100	290000	100	4783732	18000	100	4783732	N/A
Dissolved Strontium (Sr)	ug/L	130	2.0	1500	2.0	4783732	280	2.0	4783732	N/A
Dissolved Thallium (Tl)	ug/L	<0.10	0.10	<0.10	0.10	4783732	<0.10	0.10	4783732	N/A
Dissolved Tin (Sn)	ug/L	<2.0	2.0	<2.0	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Titanium (Ti)	ug/L	<2.0	2.0	<2.0	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Uranium (U)	ug/L	11	0.10	9.8	0.10	4783732	7.4	0.10	4783732	N/A
Dissolved Vanadium (V)	ug/L	<2.0	2.0	<2.0	2.0	4783732	<2.0	2.0	4783732	N/A
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<5.0	5.0	4783732	<5.0	5.0	4783732	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATL. RCAP-MS DISSOLVED (LABFILT) IN W

Maxxam ID		DOU938		DOU938		DOU939			
Sampling Date		2016/12/06 14:30		2016/12/06 14:30		2016/12/06 14:00			
COC Number		589040-01-01		589040-01-01		589040-01-01			
	UNITS	MW6	RDL	MW6 Lab-Dup	QC Batch	MW7S	RDL	QC Batch	MDL
Calculated Parameters									
Anion Sum	me/L	2.09	N/A		4781811	0.870	N/A	4781811	N/A
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	88	1.0		4781808	24	1.0	4781808	0.20
Calculated TDS	mg/L	130	1.0		4781816	63	1.0	4781816	0.20
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0		4781808	<1.0	1.0	4781808	0.20
Cation Sum	me/L	1.91	N/A		4781811	0.810	N/A	4781811	N/A
Hardness (CaCO3)	mg/L	77	1.0		4781809	25	1.0	4781809	1.0
Ion Balance (% Difference)	%	4.50	N/A		4781810	3.57	N/A	4781810	N/A
Langelier Index (@ 20C)	N/A	-1.04			4781814	-2.20		4781814	
Langelier Index (@ 4C)	N/A	-1.29			4781815	-2.45		4781815	
Nitrate (N)	mg/L	0.067	0.050		4781812	<0.050	0.050	4781812	N/A
Saturation pH (@ 20C)	N/A	8.04			4781814	9.09		4781814	
Saturation pH (@ 4C)	N/A	8.29			4781815	9.34		4781815	
Inorganics									
Total Alkalinity (Total as CaCO3)	mg/L	89	5.0		4793706	24	5.0	4793706	N/A
Dissolved Chloride (Cl)	mg/L	7.2	1.0		4793708	9.5	1.0	4793708	N/A
Colour	TCU	<5.0	5.0		4793713	<5.0	5.0	4793713	N/A
Nitrate + Nitrite (N)	mg/L	0.067	0.050		4793715	<0.050	0.050	4793715	N/A
Nitrite (N)	mg/L	<0.010	0.010		4793716	<0.010	0.010	4793716	N/A
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050		4791793	<0.050	0.050	4791793	N/A
Total Organic Carbon (C)	mg/L	1.7	0.50		4793697	<50 (1)	50	4793697	N/A
Orthophosphate (P)	mg/L	0.036	0.010		4793714	0.034	0.010	4793714	N/A
pH	pH	7.00	N/A	7.00	4785636	6.89	N/A	4787440	N/A
Reactive Silica (SiO2)	mg/L	26	1.0		4793711	16	0.50	4793711	N/A
Dissolved Sulphate (SO4)	mg/L	5.3	2.0		4793710	6.0	2.0	4793710	N/A
Turbidity	NTU	19	0.10		4789758	>1000	1.0	4791723	0.10
Conductivity	uS/cm	170	1.0		4785637	84	1.0	4787441	N/A
Metals									
Dissolved Aluminum (Al)	ug/L	6.7	5.0		4783732	27	5.0	4783732	N/A
Dissolved Antimony (Sb)	ug/L	<1.0	1.0		4783732	<1.0	1.0	4783732	N/A
Dissolved Arsenic (As)	ug/L	<1.0	1.0		4783732	<1.0	1.0	4783732	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Reporting limit was increased due to turbidity.

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Success Through Science

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATL. RCAP-MS DISSOLVED (LABFILT) IN W

Maxxam ID		DOU938		DOU938		DOU939			
Sampling Date		2016/12/06 14:30		2016/12/06 14:30		2016/12/06 14:00			
COC Number		589040-01-01		589040-01-01		589040-01-01			
	UNITS	MW6	RDL	MW6 Lab-Dup	QC Batch	MW7S	RDL	QC Batch	MDL
Dissolved Barium (Ba)	ug/L	25	1.0		4783732	12	1.0	4783732	N/A
Dissolved Beryllium (Be)	ug/L	<1.0	1.0		4783732	<1.0	1.0	4783732	N/A
Dissolved Bismuth (Bi)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Boron (B)	ug/L	<50	50		4783732	<50	50	4783732	N/A
Dissolved Cadmium (Cd)	ug/L	0.039	0.010		4783732	<0.010	0.010	4783732	N/A
Dissolved Calcium (Ca)	ug/L	24000	100		4783732	7200	100	4783732	N/A
Dissolved Chromium (Cr)	ug/L	<1.0	1.0		4783732	<1.0	1.0	4783732	N/A
Dissolved Cobalt (Co)	ug/L	0.42	0.40		4783732	<0.40	0.40	4783732	N/A
Dissolved Copper (Cu)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Iron (Fe)	ug/L	<50	50		4783732	<50	50	4783732	N/A
Dissolved Lead (Pb)	ug/L	<0.50	0.50		4783732	<0.50	0.50	4783732	N/A
Dissolved Magnesium (Mg)	ug/L	4400	100		4783732	1600	100	4783732	N/A
Dissolved Manganese (Mn)	ug/L	1000	2.0		4783732	3.6	2.0	4783732	N/A
Dissolved Molybdenum (Mo)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Nickel (Ni)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Phosphorus (P)	ug/L	<100	100		4783732	<100	100	4783732	N/A
Dissolved Potassium (K)	ug/L	1100	100		4783732	730	100	4783732	N/A
Dissolved Selenium (Se)	ug/L	<1.0	1.0		4783732	<1.0	1.0	4783732	N/A
Dissolved Silver (Ag)	ug/L	<0.10	0.10		4783732	<0.10	0.10	4783732	N/A
Dissolved Sodium (Na)	ug/L	7800	100		4783732	6900	100	4783732	N/A
Dissolved Strontium (Sr)	ug/L	57	2.0		4783732	22	2.0	4783732	N/A
Dissolved Thallium (Tl)	ug/L	<0.10	0.10		4783732	<0.10	0.10	4783732	N/A
Dissolved Tin (Sn)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Titanium (Ti)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Uranium (U)	ug/L	0.25	0.10		4783732	<0.10	0.10	4783732	N/A
Dissolved Vanadium (V)	ug/L	<2.0	2.0		4783732	<2.0	2.0	4783732	N/A
Dissolved Zinc (Zn)	ug/L	5.8	5.0		4783732	<5.0	5.0	4783732	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 200 Bluewater Rd, Suite 105, Bedford, Nova Scotia Canada B4B 1G9 Tel: 902-420-0203 Toll-free: 800-565-7227 Fax: 902-420-8612 www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATL. RCAP-MS DISSOLVED (LABFILT) IN W

Maxxam ID		DOU940			DOU941			
Sampling Date		2016/12/06 14:10			2016/12/06 14:45			
COC Number		589040-01-01			589040-01-01			
	UNITS	MW7D	RDL	QC Batch	MW9	RDL	QC Batch	MDL
Calculated Parameters								
Anion Sum	me/L	4.29	N/A	4781811	19.0	N/A	4781811	N/A
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	4781808	790	1.0	4781808	0.20
Calculated TDS	mg/L	230	1.0	4781816	1000	1.0	4781816	0.20
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	4781808	<1.0	1.0	4781808	0.20
Cation Sum	me/L	4.36	N/A	4781811	21.0	N/A	4781811	N/A
Hardness (CaCO3)	mg/L	190	1.0	4781809	950	1.0	4781809	1.0
Ion Balance (% Difference)	%	0.810	N/A	4781810	5.01	N/A	4781810	N/A
Langelier Index (@ 20C)	N/A	-0.222		4781814	0.400		4781814	
Langelier Index (@ 4C)	N/A	-0.471		4781815	0.154		4781815	
Nitrate (N)	mg/L	<0.050	0.050	4781812	<0.050	0.050	4781812	N/A
Saturation pH (@ 20C)	N/A	7.43		4781814	6.21		4781814	
Saturation pH (@ 4C)	N/A	7.68		4781815	6.46		4781815	
Inorganics								
Total Alkalinity (Total as CaCO3)	mg/L	160	25	4793706	790	100	4793706	N/A
Dissolved Chloride (Cl)	mg/L	33	1.0	4793708	110	1.0	4793708	N/A
Colour	TCU	<5.0	5.0	4793713	280	100	4793713	N/A
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	4793715	<0.050	0.050	4793715	N/A
Nitrite (N)	mg/L	<0.010	0.010	4793716	0.017	0.010	4793716	N/A
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	4791793	2.4	0.25	4791793	N/A
Total Organic Carbon (C)	mg/L	1.1	0.50	4793697	54 (1)	50	4793697	N/A
Orthophosphate (P)	mg/L	0.045	0.010	4793714	0.024	0.010	4793714	N/A
pH	pH	7.21	N/A	4787440	6.61	N/A	4787440	N/A
Reactive Silica (SiO2)	mg/L	17	0.50	4793711	25	1.0	4793711	N/A
Dissolved Sulphate (SO4)	mg/L	3.5	2.0	4793710	<2.0	2.0	4793710	N/A
Turbidity	NTU	1.2	0.10	4789758	640	1.0	4791723	0.10
Conductivity	uS/cm	410	1.0	4787441	1700	1.0	4787441	N/A
Metals								
Dissolved Aluminum (Al)	ug/L	5.1	5.0	4783732	42	5.0	4783732	N/A
Dissolved Antimony (Sb)	ug/L	<1.0	1.0	4783732	<1.0	1.0	4783732	N/A
Dissolved Arsenic (As)	ug/L	<1.0	1.0	4783732	5.5	1.0	4783732	N/A
Dissolved Barium (Ba)	ug/L	22	1.0	4783732	400	1.0	4783732	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Reporting limit was increased due to turbidity.

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATLANTIC RCAP-MS TOTAL METALS IN WATER (WATER)

Maxxam ID		DOU942	DOU942			DOU948	DOU948			
Sampling Date		2016/12/06 15:30	2016/12/06 15:30			2016/12/06 13:30	2016/12/06 13:30			
COC Number		589040-01-01	589040-01-01			589040-02-01	589040-02-01			
	UNITS	SW5	SW5 Lab-Dup	RDL	QC Batch	SW8	SW8 Lab-Dup	RDL	QC Batch	MDL
Calculated Parameters										
Anion Sum	me/L	0.720		N/A	4781811	0.600		N/A	4781811	N/A
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	15		1.0	4781808	11		1.0	4781808	0.20
Calculated TDS	mg/L	53		1.0	4781816	38		1.0	4781816	0.20
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0		1.0	4781808	<1.0		1.0	4781808	0.20
Cation Sum	me/L	1.09		N/A	4781811	0.530		N/A	4781811	N/A
Hardness (CaCO3)	mg/L	17		1.0	4781809	11		1.0	4781809	1.0
Ion Balance (% Difference)	%	20.4		N/A	4781810	6.19		N/A	4781810	N/A
Langelier Index (@ 20C)	N/A	-2.91			4781814	-3.19			4781814	
Langelier Index (@ 4C)	N/A	-3.17			4781815	-3.44			4781815	
Nitrate (N)	mg/L	<0.050		0.050	4781812	0.11		0.050	4781812	N/A
Saturation pH (@ 20C)	N/A	9.47			4781814	9.77			4781814	
Saturation pH (@ 4C)	N/A	9.72			4781815	10.0			4781815	
Inorganics										
Total Alkalinity (Total as CaCO3)	mg/L	15		5.0	4793706	11		5.0	4793706	N/A
Dissolved Chloride (Cl)	mg/L	15		1.0	4793708	13		1.0	4793708	N/A
Colour	TCU	120		25	4793713	130		25	4793713	N/A
Nitrate + Nitrite (N)	mg/L	<0.050		0.050	4793715	0.11		0.050	4793715	N/A
Nitrite (N)	mg/L	<0.010		0.010	4793716	<0.010		0.010	4793716	N/A
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	<0.050	0.050	4791793	<0.050		0.050	4791793	N/A
Total Organic Carbon (C)	mg/L	15 (1)		5.0	4793697	13		0.50	4793697	N/A
Orthophosphate (P)	mg/L	0.015		0.010	4793714	0.014		0.010	4793714	N/A
pH	pH	6.55		N/A	4787440	6.59	6.62	N/A	4787438	N/A
Reactive Silica (SiO2)	mg/L	4.3		0.50	4793711	6.5		0.50	4793711	N/A
Dissolved Sulphate (SO4)	mg/L	<2.0		2.0	4793710	<2.0		2.0	4793710	N/A
Turbidity	NTU	50		0.10	4791723	1.4		0.10	4791723	0.10
Conductivity	uS/cm	87		1.0	4787441	73	73	1.0	4787439	N/A
Metals										
Total Aluminum (Al)	ug/L	2100		5.0	4783779	450		5.0	4783767	N/A
Total Antimony (Sb)	ug/L	<1.0		1.0	4783779	<1.0		1.0	4783767	N/A
Total Arsenic (As)	ug/L	2.0		1.0	4783779	<1.0		1.0	4783767	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Reporting limit was increased due to turbidity.

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATLANTIC RCAP-MS TOTAL METALS IN WATER (WATER)

Maxxam ID		DOU942	DOU942			DOU948	DOU948			
Sampling Date		2016/12/06 15:30	2016/12/06 15:30			2016/12/06 13:30	2016/12/06 13:30			
COC Number		589040-01-01	589040-01-01			589040-02-01	589040-02-01			
	UNITS	SW5	SW5 Lab-Dup	RDL	QC Batch	SW8	SW8 Lab-Dup	RDL	QC Batch	MDL
Total Barium (Ba)	ug/L	39		1.0	4783779	5.2		1.0	4783767	N/A
Total Beryllium (Be)	ug/L	<1.0		1.0	4783779	<1.0		1.0	4783767	N/A
Total Bismuth (Bi)	ug/L	<2.0		2.0	4783779	<2.0		2.0	4783767	N/A
Total Boron (B)	ug/L	<50		50	4783779	<50		50	4783767	N/A
Total Cadmium (Cd)	ug/L	0.20		0.010	4783779	0.025		0.010	4783767	N/A
Total Calcium (Ca)	ug/L	5000		100	4783779	3100		100	4783767	N/A
Total Chromium (Cr)	ug/L	10		1.0	4783779	<1.0		1.0	4783767	N/A
Total Cobalt (Co)	ug/L	1.2		0.40	4783779	<0.40		0.40	4783767	N/A
Total Copper (Cu)	ug/L	16		2.0	4783779	<2.0		2.0	4783767	N/A
Total Iron (Fe)	ug/L	4500		50	4783779	460		50	4783767	N/A
Total Lead (Pb)	ug/L	8.2		0.50	4783779	0.80		0.50	4783767	N/A
Total Magnesium (Mg)	ug/L	1100		100	4783779	760		100	4783767	N/A
Total Manganese (Mn)	ug/L	51		2.0	4783779	28		2.0	4783767	N/A
Total Molybdenum (Mo)	ug/L	<2.0		2.0	4783779	<2.0		2.0	4783767	N/A
Total Nickel (Ni)	ug/L	5.0		2.0	4783779	<2.0		2.0	4783767	N/A
Total Phosphorus (P)	ug/L	370		100	4783779	<100		100	4783767	N/A
Total Potassium (K)	ug/L	1000		100	4783779	690		100	4783767	N/A
Total Selenium (Se)	ug/L	<1.0		1.0	4783779	<1.0		1.0	4783767	N/A
Total Silver (Ag)	ug/L	<0.10		0.10	4783779	<0.10		0.10	4783767	N/A
Total Sodium (Na)	ug/L	13000		100	4783779	6300		100	4783767	N/A
Total Strontium (Sr)	ug/L	18		2.0	4783779	14		2.0	4783767	N/A
Total Thallium (Tl)	ug/L	<0.10		0.10	4783779	<0.10		0.10	4783767	N/A
Total Tin (Sn)	ug/L	<2.0		2.0	4783779	<2.0		2.0	4783767	N/A
Total Titanium (Ti)	ug/L	67		2.0	4783779	5.0		2.0	4783767	N/A
Total Uranium (U)	ug/L	0.48		0.10	4783779	0.34		0.10	4783767	N/A
Total Vanadium (V)	ug/L	5.9		2.0	4783779	<2.0		2.0	4783767	N/A
Total Zinc (Zn)	ug/L	130		5.0	4783779	<5.0		5.0	4783767	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATLANTIC RCAP-MS TOTAL METALS IN WATER (WATER)

Maxxam ID		DOU949			
Sampling Date		2016/12/06 16:00			
COC Number		589040-02-01			
	UNITS	WELL WATER	RDL	QC Batch	MDL
Calculated Parameters					
Anion Sum	me/L	8.30	N/A	4781811	N/A
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	170	1.0	4781808	0.20
Calculated TDS	mg/L	440	1.0	4781816	0.20
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	4781808	0.20
Cation Sum	me/L	7.61	N/A	4781811	N/A
Hardness (CaCO3)	mg/L	310	1.0	4781809	1.0
Ion Balance (% Difference)	%	4.34	N/A	4781810	N/A
Langelier Index (@ 20C)	N/A	-0.0720		4781814	
Langelier Index (@ 4C)	N/A	-0.321		4781815	
Nitrate (N)	mg/L	<0.050	0.050	4781812	N/A
Saturation pH (@ 20C)	N/A	7.25		4781814	
Saturation pH (@ 4C)	N/A	7.50		4781815	
Inorganics					
Total Alkalinity (Total as CaCO3)	mg/L	170	25	4793706	N/A
Dissolved Chloride (Cl)	mg/L	170	1.0	4793708	N/A
Colour	TCU	<5.0	5.0	4793713	N/A
Nitrate + Nitrite (N)	mg/L	<0.050	0.050	4793715	N/A
Nitrite (N)	mg/L	<0.010	0.010	4793716	N/A
Nitrogen (Ammonia Nitrogen)	mg/L	<0.050	0.050	4791793	N/A
Total Organic Carbon (C)	mg/L	1.3	0.50	4793697	N/A
Orthophosphate (P)	mg/L	0.029	0.010	4793714	N/A
pH	pH	7.18	N/A	4787438	N/A
Reactive Silica (SiO2)	mg/L	17	0.50	4793711	N/A
Dissolved Sulphate (SO4)	mg/L	8.3	2.0	4793710	N/A
Turbidity	NTU	0.16	0.10	4791723	0.10
Conductivity	uS/cm	790	1.0	4787439	N/A
Metals					
Total Aluminum (Al)	ug/L	5.7	5.0	4783767	N/A
Total Antimony (Sb)	ug/L	<1.0	1.0	4783767	N/A
Total Arsenic (As)	ug/L	3.8	1.0	4783767	N/A
Total Barium (Ba)	ug/L	25	1.0	4783767	N/A
Total Beryllium (Be)	ug/L	<1.0	1.0	4783767	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

ATLANTIC RCAP-MS TOTAL METALS IN WATER (WATER)

Maxxam ID		DOU949			
Sampling Date		2016/12/06 16:00			
COC Number		589040-02-01			
	UNITS	WELL WATER	RDL	QC Batch	MDL
Total Bismuth (Bi)	ug/L	<2.0	2.0	4783767	N/A
Total Boron (B)	ug/L	<50	50	4783767	N/A
Total Cadmium (Cd)	ug/L	0.024	0.010	4783767	N/A
Total Calcium (Ca)	ug/L	96000	100	4783767	N/A
Total Chromium (Cr)	ug/L	<1.0	1.0	4783767	N/A
Total Cobalt (Co)	ug/L	<0.40	0.40	4783767	N/A
Total Copper (Cu)	ug/L	3.6	2.0	4783767	N/A
Total Iron (Fe)	ug/L	<50	50	4783767	N/A
Total Lead (Pb)	ug/L	<0.50	0.50	4783767	N/A
Total Magnesium (Mg)	ug/L	16000	100	4783767	N/A
Total Manganese (Mn)	ug/L	300	2.0	4783767	N/A
Total Molybdenum (Mo)	ug/L	3.7	2.0	4783767	N/A
Total Nickel (Ni)	ug/L	<2.0	2.0	4783767	N/A
Total Phosphorus (P)	ug/L	<100	100	4783767	N/A
Total Potassium (K)	ug/L	1900	100	4783767	N/A
Total Selenium (Se)	ug/L	<1.0	1.0	4783767	N/A
Total Silver (Ag)	ug/L	<0.10	0.10	4783767	N/A
Total Sodium (Na)	ug/L	34000	100	4783767	N/A
Total Strontium (Sr)	ug/L	490	2.0	4783767	N/A
Total Thallium (Tl)	ug/L	<0.10	0.10	4783767	N/A
Total Tin (Sn)	ug/L	<2.0	2.0	4783767	N/A
Total Titanium (Ti)	ug/L	<2.0	2.0	4783767	N/A
Total Uranium (U)	ug/L	77	0.10	4783767	N/A
Total Vanadium (V)	ug/L	<2.0	2.0	4783767	N/A
Total Zinc (Zn)	ug/L	6.0	5.0	4783767	N/A

RDL = Reportable Detection Limit
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N/A = Not Applicable

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Maxxam
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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

RESULTS OF ANALYSES OF WATER

Maxxam ID		DOU935			DOU936		DOU937			
Sampling Date		2016/12/06 12:00			2016/12/06 13:00		2016/12/06 12:30			
COC Number		589040-01-01			589040-01-01		589040-01-01			
	UNITS	MW1R	RDL	QC Batch	MW2	RDL	MW3	RDL	QC Batch	MDL
Inorganics										
Total Chemical Oxygen Demand	mg/L	<5.0	5.0	4788123	200	20	24	20	4785841	N/A
Total Kjeldahl Nitrogen (TKN)	mg/L	0.41	0.10	4791700		0.10	0.11	0.10	4786323	0.050
Dissolved Organic Carbon (C)	mg/L	<0.50	0.50	4793912	59 (1)	5.0	0.79	0.50	4793912	N/A
Phenols-4AAP	mg/L	0.0018	0.0010	4790482			0.0016	0.0010	4790482	N/A
Total Phosphorus	mg/L	0.34	0.020	4788296			0.40	0.020	4788296	N/A
Total Suspended Solids	mg/L	190	5.0	4790246	23	5.0	1100	20	4790246	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Elevated reporting limit due to sample matrix.

Maxxam ID		DOU938		DOU939	DOU939			
Sampling Date		2016/12/06 14:30		2016/12/06 14:00	2016/12/06 14:00			
COC Number		589040-01-01		589040-01-01	589040-01-01			
	UNITS	MW6	RDL	MW7S	MW7S Lab-Dup	RDL	QC Batch	MDL
Inorganics								
Total Chemical Oxygen Demand	mg/L	8.5	5.0	<5.0		5.0	4788123	N/A
Total Kjeldahl Nitrogen (TKN)	mg/L	0.29	0.10	0.12		0.10	4786323	0.050
Dissolved Organic Carbon (C)	mg/L	1.3	0.50	1.7		0.50	4793912	N/A
Phenols-4AAP	mg/L	0.0013	0.0010	<0.0010		0.0010	4790482	N/A
Total Phosphorus	mg/L	0.24	0.020	0.72		0.050	4788296	N/A
Total Suspended Solids	mg/L	31	2.0	1000	940	20	4790246	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

RESULTS OF ANALYSES OF WATER

Maxxam ID		DOU940			DOU941			DOU942			
Sampling Date		2016/12/06 14:10			2016/12/06 14:45			2016/12/06 15:30			
COC Number		589040-01-01			589040-01-01			589040-01-01			
	UNITS	MW7D	RDL	QC Batch	MW9	RDL	QC Batch	SW5	RDL	QC Batch	MDL
Inorganics											
Carbonaceous BOD	mg/L					5.0	4782183	<5.0	5.0	4782183	N/A
Total Chemical Oxygen Demand	mg/L	<5.0	5.0	4788123	290	20	4785841	330	20	4785841	N/A
Total Dissolved Solids	mg/L					10	4792360	89	10	4792360	N/A
Total Kjeldahl Nitrogen (TKN)	mg/L	0.12	0.10	4786323	4.5	0.10	4791700	0.50	0.10	4791700	0.050
Dissolved Organic Carbon (C)	mg/L	1.3	0.50	4793912	64 (1)	5.0	4793912		5.0	4793912	N/A
Phenols-4AAP	mg/L	<0.0010	0.0010	4792437	0.0093	0.0010	4792437	<0.0010	0.0010	4792437	N/A
Total Phosphorus	mg/L	0.070	0.020	4788296	2.8	0.10	4788296	0.078	0.020	4788298	N/A
Total Suspended Solids	mg/L	20	1.0	4790246	3100	20	4790246	30	5.0	4790246	N/A
Tannins & Lignins	mg/L							2.5	0.2	4783970	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Elevated reporting limit due to sample matrix.

Maxxam ID		DOU942			DOU948			
Sampling Date		2016/12/06 15:30			2016/12/06 13:30			
COC Number		589040-01-01			589040-02-01			
	UNITS	SW5 Lab-Dup	RDL	QC Batch	SW8	RDL	QC Batch	MDL
Inorganics								
Carbonaceous BOD	mg/L		5.0	4782183	<5.0	5.0	4782183	N/A
Total Chemical Oxygen Demand	mg/L		20	4785841	39	20	4785841	N/A
Total Dissolved Solids	mg/L		10	4792360	75	10	4792360	N/A
Total Kjeldahl Nitrogen (TKN)	mg/L		0.10	4791700	0.29	0.10	4786323	0.050
Phenols-4AAP	mg/L		0.0010	4792437	<0.0010	0.0010	4792437	N/A
Total Phosphorus	mg/L		0.020	4788298	0.033	0.020	4788298	N/A
Total Suspended Solids	mg/L		5.0	4790246	1.2	1.0	4790246	N/A
Tannins & Lignins	mg/L	2.5	0.2	4783970	2.4	0.2	4783970	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Client Project #: P-0011638-0-01-201
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Your P.O. #: A07332
Sampler Initials: AS

MERCURY BY COLD VAPOUR AA (WATER)

Maxxam ID		DOU935	DOU937	DOU938	DOU939	DOU940	DOU941			
Sampling Date		2016/12/06 12:00	2016/12/06 12:30	2016/12/06 14:30	2016/12/06 14:00	2016/12/06 14:10	2016/12/06 14:45			
COC Number		589040-01-01	589040-01-01	589040-01-01	589040-01-01	589040-01-01	589040-01-01			
	UNITS	MW1R	MW3	MW6	MW7S	MW7D	MW9	RDL	QC Batch	MDL
Metals										
Total Mercury (Hg)	ug/L	<0.013	<0.013	<0.013	0.022	<0.013	0.017	0.013	4790390	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam ID		DOU942	DOU948			
Sampling Date		2016/12/06 15:30	2016/12/06 13:30			
COC Number		589040-01-01	589040-02-01			
	UNITS	SW5	SW8	RDL	QC Batch	MDL
Metals						
Total Mercury (Hg)	ug/L	0.023	<0.013	0.013	4790390	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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MICROBIOLOGY COLILERT (WATER)

Maxxam ID		DOU949			
Sampling Date		2016/12/06 16:00			
COC Number		589040-02-01			
	UNITS	WELL WATER	RDL	QC Batch	MDL
Microbiological					
Escherichia coli	CFU/100mL	<1.0	1.0	4781946	N/A
Total Coliforms	CFU/100mL	<1.0	1.0	4781946	N/A

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU935
Sample ID: MW1R
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/09	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4788123	N/A	2016/12/12	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4785637	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4790482	N/A	2016/12/13	Cliff Raymond
pH	AT	4785636	N/A	2016/12/09	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4791700	2016/12/09	2016/12/15	Amarinder Sawhney
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4789758	N/A	2016/12/13	Julia McGovern

Maxxam ID: DOU936
Sample ID: MW2
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/09	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4785841	N/A	2016/12/09	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4785637	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU936
Sample ID: MW2
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
pH	AT	4785636	N/A	2016/12/09	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4789758	N/A	2016/12/13	Julia McGovern

Maxxam ID: DOU937
Sample ID: MW3
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/09	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4785841	N/A	2016/12/09	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4785637	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4790482	N/A	2016/12/13	Cliff Raymond
pH	AT	4785636	N/A	2016/12/09	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU937
Sample ID: MW3
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4786323	2016/12/09	2016/12/15	Rajni Tyagi
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4791712	N/A	2016/12/14	Julia McGovern

Maxxam ID: DOU938
Sample ID: MW6
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/09	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4788123	N/A	2016/12/12	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4785637	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4790482	N/A	2016/12/13	Cliff Raymond
pH	AT	4785636	N/A	2016/12/09	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4786323	2016/12/09	2016/12/16	Rajni Tyagi
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU938
Sample ID: MW6
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	TURB	4789758	N/A	2016/12/13	Julia McGovern

Maxxam ID: DOU938 Dup
Sample ID: MW6
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	4785636	N/A	2016/12/09	Julia McGovern

Maxxam ID: DOU939
Sample ID: MW7S
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4788123	N/A	2016/12/12	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4787441	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4790482	N/A	2016/12/13	Cliff Raymond
pH	AT	4787440	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4786323	2016/12/09	2016/12/15	Rajni Tyagi
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4791723	N/A	2016/12/14	Julia McGovern

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU939 Dup
Sample ID: MW7S
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan

Maxxam ID: DOU940
Sample ID: MW7D
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4788123	N/A	2016/12/12	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4787441	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4792437	N/A	2016/12/14	Cliff Raymond
pH	AT	4787440	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4786323	2016/12/09	2016/12/15	Rajni Tyagi
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4789758	N/A	2016/12/13	Julia McGovern

Maxxam ID: DOU941
Sample ID: MW9
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU941
Sample ID: MW9
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	KONE	4793706	N/A	2016/12/16	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4785841	N/A	2016/12/09	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Organic carbon - Diss (DOC)	TECH	4793912	N/A	2016/12/15	Soraya Merchant
Conductance - water	AT	4787441	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Diss. MS	CICP/MS	4783732	N/A	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4792437	N/A	2016/12/14	Cliff Raymond
pH	AT	4787440	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4791700	2016/12/09	2016/12/15	Amarinder Sawhney
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788296	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4791723	N/A	2016/12/14	Julia McGovern

Maxxam ID: DOU942
Sample ID: SW5
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Carbonaceous BOD	SKAL/DO	4782183	2016/12/07	2016/12/12	Christina Jones
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4785841	N/A	2016/12/09	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Conductance - water	AT	4787441	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU942
Sample ID: SW5
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals Water Total MS	CICP/MS	4783779	2016/12/08	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4792437	N/A	2016/12/14	Cliff Raymond
pH	AT	4787440	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/16	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/16	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Tannins & Lignins	SPEC	4783970	N/A	2016/12/08	Viorica Rotaru
Total Dissolved Solids (Filt. Residue)	BAL	4792360	2016/12/13	2016/12/15	Leslie Power
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4791700	2016/12/09	2016/12/15	Amarinder Sawhney
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788298	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4791723	N/A	2016/12/14	Julia McGovern

Maxxam ID: DOU942 Dup
Sample ID: SW5
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Tannins & Lignins	SPEC	4783970	N/A	2016/12/08	Viorica Rotaru

Maxxam ID: DOU948
Sample ID: SW8
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Carbonaceous BOD	SKAL/DO	4782183	2016/12/07	2016/12/12	Christina Jones
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
Chemical Oxygen Demand (COD)	SPEC	4785841	N/A	2016/12/09	Zanxin Zhou
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers
Conductance - water	AT	4787439	N/A	2016/12/10	Julia McGovern

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU948
Sample ID: SW8
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Mercury - Total (CVAA,LL)	CV/AA	4790390	2016/12/13	2016/12/14	Arlene Rossiter
Metals Water Total MS	CICP/MS	4783767	2016/12/08	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
Phenols (4-AAP)	TECH	4792437	N/A	2016/12/14	Cliff Raymond
pH	AT	4787438	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/16	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/16	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Tannins & Lignins	SPEC	4783970	N/A	2016/12/08	Viorica Rotaru
Total Dissolved Solids (Filt. Residue)	BAL	4792360	2016/12/13	2016/12/15	Leslie Power
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Total Kjeldahl Nitrogen in Water	SKAL	4786323	2016/12/09	2016/12/16	Rajni Tyagi
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Phosphorus Total Colourimetry	KONE	4788298	2016/12/12	2016/12/14	Mary Clancey
Total Suspended Solids	BAL	4790246	2016/12/13	2016/12/15	Megan MacMillan
Turbidity	TURB	4791723	N/A	2016/12/14	Julia McGovern

Maxxam ID: DOU948 Dup
Sample ID: SW8
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductance - water	AT	4787439	N/A	2016/12/10	Julia McGovern
pH	AT	4787438	N/A	2016/12/10	Julia McGovern

Maxxam ID: DOU949
Sample ID: WELL WATER
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	4781808	N/A	2016/12/10	Automated Statchk
Alkalinity	KONE	4793706	N/A	2016/12/15	Mary Clancey
Chloride	KONE	4793708	N/A	2016/12/16	Nancy Rogers
TC/EC Drinking Water CFU/100mL		4781946	N/A	2016/12/07	Jason Wang
Colour	KONE	4793713	N/A	2016/12/15	Nancy Rogers

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

TEST SUMMARY

Maxxam ID: DOU949
Sample ID: WELL WATER
Matrix: Water

Collected: 2016/12/06
Shipped:
Received: 2016/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductance - water	AT	4787439	N/A	2016/12/10	Julia McGovern
Hardness (calculated as CaCO3)		4781809	N/A	2016/12/09	Automated Statchk
Metals Water Total MS	CICP/MS	4783767	2016/12/08	2016/12/08	Bryon Angevine
Ion Balance (% Difference)	CALC	4781810	N/A	2016/12/17	Automated Statchk
Anion and Cation Sum	CALC	4781811	N/A	2016/12/15	Automated Statchk
Nitrogen Ammonia - water	KONE	4791793	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrate + Nitrite	KONE	4793715	N/A	2016/12/15	Nancy Rogers
Nitrogen - Nitrite	KONE	4793716	N/A	2016/12/19	Nancy Rogers
Nitrogen - Nitrate (as N)	CALC	4781812	N/A	2016/12/19	Automated Statchk
pH	AT	4787438	N/A	2016/12/10	Julia McGovern
Phosphorus - ortho	KONE	4793714	N/A	2016/12/16	Cecilia (Kate) Barrett
Sat. pH and Langelier Index (@ 20C)	CALC	4781814	N/A	2016/12/17	Automated Statchk
Sat. pH and Langelier Index (@ 4C)	CALC	4781815	N/A	2016/12/17	Automated Statchk
Reactive Silica	KONE	4793711	N/A	2016/12/15	Mary Clancey
Sulphate	KONE	4793710	N/A	2016/12/16	Cecilia (Kate) Barrett
Total Dissolved Solids (TDS calc)	CALC	4781816	N/A	2016/12/17	Automated Statchk
Organic carbon - Total (TOC)	TECH	4793697	N/A	2016/12/15	Soraya Merchant
Turbidity	TURB	4791723	N/A	2016/12/14	Julia McGovern

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C
Package 2	4.7°C

Sample DOU935 [MW1R] : Phenolics: The sample was decanted due to sediment.

Sample DOU937 [MW3] : Phenolics: The sample was decanted due to sediment.

Sample DOU939 [MW7S] : Phenolics: The sample was decanted due to sediment.

Sample DOU941 [MW9] : Phenolics: The sample was decanted due to turbidity.

Poor RCAp Ion Balance due to sample matrix. Possibly due to fine particulate matter.

Sample DOU942 [SW5] : Poor RCAp Ion Balance due to sample matrix. Excess cations due to presence of turbidity.

Sample DOU948 [SW8] : RCAp Ion Balance acceptable. Anion/cation agreement within 0.2 meq/L.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4781946	JWA	Method Blank	Escherichia coli	2016/12/07	<1.0		CFU/100	
			Total Coliforms	2016/12/07	<1.0		CFU/100	
4782183	CJN	QC Standard	Carbonaceous BOD	2016/12/12		105	%	80 - 120
4782183	CJN	Spiked Blank	Carbonaceous BOD	2016/12/12		93	%	80 - 120
4782183	CJN	Method Blank	Carbonaceous BOD	2016/12/12	<2.0		mg/L	
4782183	CJN	RPD - Sample/Sample Dup	Carbonaceous BOD	2016/12/12	NC		%	25
4783732	BAN	Matrix Spike	Dissolved Aluminum (Al)	2016/12/08		103	%	80 - 120
			Dissolved Antimony (Sb)	2016/12/08		101	%	80 - 120
			Dissolved Arsenic (As)	2016/12/08		97	%	80 - 120
			Dissolved Barium (Ba)	2016/12/08		95	%	80 - 120
			Dissolved Beryllium (Be)	2016/12/08		97	%	80 - 120
			Dissolved Bismuth (Bi)	2016/12/08		102	%	80 - 120
			Dissolved Boron (B)	2016/12/08		101	%	80 - 120
			Dissolved Cadmium (Cd)	2016/12/08		99	%	80 - 120
			Dissolved Calcium (Ca)	2016/12/08		101	%	80 - 120
			Dissolved Chromium (Cr)	2016/12/08		96	%	80 - 120
			Dissolved Cobalt (Co)	2016/12/08		97	%	80 - 120
			Dissolved Copper (Cu)	2016/12/08		98	%	80 - 120
			Dissolved Iron (Fe)	2016/12/08		102	%	80 - 120
			Dissolved Lead (Pb)	2016/12/08		98	%	80 - 120
			Dissolved Magnesium (Mg)	2016/12/08		104	%	80 - 120
			Dissolved Manganese (Mn)	2016/12/08		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2016/12/08		103	%	80 - 120
			Dissolved Nickel (Ni)	2016/12/08		100	%	80 - 120
			Dissolved Phosphorus (P)	2016/12/08		105	%	80 - 120
			Dissolved Potassium (K)	2016/12/08		105	%	80 - 120
			Dissolved Selenium (Se)	2016/12/08		98	%	80 - 120
			Dissolved Silver (Ag)	2016/12/08		98	%	80 - 120
			Dissolved Sodium (Na)	2016/12/08		100	%	80 - 120
			Dissolved Strontium (Sr)	2016/12/08		100	%	80 - 120
			Dissolved Thallium (Tl)	2016/12/08		102	%	80 - 120
			Dissolved Tin (Sn)	2016/12/08		103	%	80 - 120
			Dissolved Titanium (Ti)	2016/12/08		102	%	80 - 120
			Dissolved Uranium (U)	2016/12/08		106	%	80 - 120
			Dissolved Vanadium (V)	2016/12/08		97	%	80 - 120
			Dissolved Zinc (Zn)	2016/12/08		99	%	80 - 120
4783732	BAN	Spiked Blank	Dissolved Aluminum (Al)	2016/12/08		105	%	80 - 120
			Dissolved Antimony (Sb)	2016/12/08		102	%	80 - 120
			Dissolved Arsenic (As)	2016/12/08		98	%	80 - 120
			Dissolved Barium (Ba)	2016/12/08		95	%	80 - 120
			Dissolved Beryllium (Be)	2016/12/08		99	%	80 - 120
			Dissolved Bismuth (Bi)	2016/12/08		102	%	80 - 120
			Dissolved Boron (B)	2016/12/08		103	%	80 - 120
			Dissolved Cadmium (Cd)	2016/12/08		100	%	80 - 120
			Dissolved Calcium (Ca)	2016/12/08		102	%	80 - 120
			Dissolved Chromium (Cr)	2016/12/08		98	%	80 - 120
			Dissolved Cobalt (Co)	2016/12/08		99	%	80 - 120
			Dissolved Copper (Cu)	2016/12/08		100	%	80 - 120
			Dissolved Iron (Fe)	2016/12/08		104	%	80 - 120
			Dissolved Lead (Pb)	2016/12/08		98	%	80 - 120
			Dissolved Magnesium (Mg)	2016/12/08		105	%	80 - 120

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Dissolved Manganese (Mn)	2016/12/08		102	%	80 - 120
			Dissolved Molybdenum (Mo)	2016/12/08		102	%	80 - 120
			Dissolved Nickel (Ni)	2016/12/08		101	%	80 - 120
			Dissolved Phosphorus (P)	2016/12/08		105	%	80 - 120
			Dissolved Potassium (K)	2016/12/08		106	%	80 - 120
			Dissolved Selenium (Se)	2016/12/08		98	%	80 - 120
			Dissolved Silver (Ag)	2016/12/08		97	%	80 - 120
			Dissolved Sodium (Na)	2016/12/08		102	%	80 - 120
			Dissolved Strontium (Sr)	2016/12/08		100	%	80 - 120
			Dissolved Thallium (Tl)	2016/12/08		102	%	80 - 120
			Dissolved Tin (Sn)	2016/12/08		102	%	80 - 120
			Dissolved Titanium (Ti)	2016/12/08		104	%	80 - 120
			Dissolved Uranium (U)	2016/12/08		106	%	80 - 120
			Dissolved Vanadium (V)	2016/12/08		99	%	80 - 120
			Dissolved Zinc (Zn)	2016/12/08		100	%	80 - 120
4783732	BAN	Method Blank	Dissolved Aluminum (Al)	2016/12/08	<5.0		ug/L	
			Dissolved Antimony (Sb)	2016/12/08	<1.0		ug/L	
			Dissolved Arsenic (As)	2016/12/08	<1.0		ug/L	
			Dissolved Barium (Ba)	2016/12/08	<1.0		ug/L	
			Dissolved Beryllium (Be)	2016/12/08	<1.0		ug/L	
			Dissolved Bismuth (Bi)	2016/12/08	<2.0		ug/L	
			Dissolved Boron (B)	2016/12/08	<50		ug/L	
			Dissolved Cadmium (Cd)	2016/12/08	<0.010		ug/L	
			Dissolved Calcium (Ca)	2016/12/08	<100		ug/L	
			Dissolved Chromium (Cr)	2016/12/08	<1.0		ug/L	
			Dissolved Cobalt (Co)	2016/12/08	<0.40		ug/L	
			Dissolved Copper (Cu)	2016/12/08	<2.0		ug/L	
			Dissolved Iron (Fe)	2016/12/08	<50		ug/L	
			Dissolved Lead (Pb)	2016/12/08	<0.50		ug/L	
			Dissolved Magnesium (Mg)	2016/12/08	<100		ug/L	
			Dissolved Manganese (Mn)	2016/12/08	<2.0		ug/L	
			Dissolved Molybdenum (Mo)	2016/12/08	<2.0		ug/L	
			Dissolved Nickel (Ni)	2016/12/08	<2.0		ug/L	
			Dissolved Phosphorus (P)	2016/12/08	<100		ug/L	
			Dissolved Potassium (K)	2016/12/08	<100		ug/L	
			Dissolved Selenium (Se)	2016/12/08	<1.0		ug/L	
			Dissolved Silver (Ag)	2016/12/08	<0.10		ug/L	
			Dissolved Sodium (Na)	2016/12/08	<100		ug/L	
			Dissolved Strontium (Sr)	2016/12/08	<2.0		ug/L	
			Dissolved Thallium (Tl)	2016/12/08	<0.10		ug/L	
			Dissolved Tin (Sn)	2016/12/08	<2.0		ug/L	
			Dissolved Titanium (Ti)	2016/12/08	<2.0		ug/L	
			Dissolved Uranium (U)	2016/12/08	<0.10		ug/L	
			Dissolved Vanadium (V)	2016/12/08	<2.0		ug/L	
			Dissolved Zinc (Zn)	2016/12/08	<5.0		ug/L	
4783732	BAN	RPD - Sample/Sample Dup	Dissolved Aluminum (Al)	2016/12/08	NC		%	20
			Dissolved Antimony (Sb)	2016/12/08	NC		%	20
			Dissolved Arsenic (As)	2016/12/08	NC		%	20
			Dissolved Barium (Ba)	2016/12/08	NC		%	20
			Dissolved Beryllium (Be)	2016/12/08	NC		%	20
			Dissolved Bismuth (Bi)	2016/12/08	NC		%	20

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Dissolved Boron (B)	2016/12/08	NC		%	20
			Dissolved Cadmium (Cd)	2016/12/08	NC		%	20
			Dissolved Calcium (Ca)	2016/12/08	NC		%	20
			Dissolved Chromium (Cr)	2016/12/08	NC		%	20
			Dissolved Cobalt (Co)	2016/12/08	NC		%	20
			Dissolved Copper (Cu)	2016/12/08	NC		%	20
			Dissolved Iron (Fe)	2016/12/08	NC		%	20
			Dissolved Lead (Pb)	2016/12/08	NC		%	20
			Dissolved Magnesium (Mg)	2016/12/08	NC		%	20
			Dissolved Manganese (Mn)	2016/12/08	NC		%	20
			Dissolved Molybdenum (Mo)	2016/12/08	NC		%	20
			Dissolved Nickel (Ni)	2016/12/08	NC		%	20
			Dissolved Phosphorus (P)	2016/12/08	NC		%	20
			Dissolved Potassium (K)	2016/12/08	NC		%	20
			Dissolved Selenium (Se)	2016/12/08	NC		%	20
			Dissolved Silver (Ag)	2016/12/08	NC		%	20
			Dissolved Sodium (Na)	2016/12/08	NC		%	20
			Dissolved Strontium (Sr)	2016/12/08	NC		%	20
			Dissolved Thallium (Tl)	2016/12/08	NC		%	20
			Dissolved Tin (Sn)	2016/12/08	NC		%	20
			Dissolved Titanium (Ti)	2016/12/08	NC		%	20
			Dissolved Uranium (U)	2016/12/08	NC		%	20
			Dissolved Vanadium (V)	2016/12/08	NC		%	20
			Dissolved Zinc (Zn)	2016/12/08	NC		%	20
4783767	BAN	Matrix Spike	Total Aluminum (Al)	2016/12/08		NC	%	80 - 120
			Total Antimony (Sb)	2016/12/08		102	%	80 - 120
			Total Arsenic (As)	2016/12/08		96	%	80 - 120
			Total Barium (Ba)	2016/12/08		NC	%	80 - 120
			Total Beryllium (Be)	2016/12/08		97	%	80 - 120
			Total Bismuth (Bi)	2016/12/08		100	%	80 - 120
			Total Boron (B)	2016/12/08		103	%	80 - 120
			Total Cadmium (Cd)	2016/12/08		96	%	80 - 120
			Total Calcium (Ca)	2016/12/08		NC	%	80 - 120
			Total Chromium (Cr)	2016/12/08		95	%	80 - 120
			Total Cobalt (Co)	2016/12/08		95	%	80 - 120
			Total Copper (Cu)	2016/12/08		94	%	80 - 120
			Total Iron (Fe)	2016/12/08		NC	%	80 - 120
			Total Lead (Pb)	2016/12/08		95	%	80 - 120
			Total Magnesium (Mg)	2016/12/08		NC	%	80 - 120
			Total Manganese (Mn)	2016/12/08		NC	%	80 - 120
			Total Molybdenum (Mo)	2016/12/08		104	%	80 - 120
			Total Nickel (Ni)	2016/12/08		97	%	80 - 120
			Total Phosphorus (P)	2016/12/08		102	%	80 - 120
			Total Potassium (K)	2016/12/08		107	%	80 - 120
			Total Selenium (Se)	2016/12/08		96	%	80 - 120
			Total Silver (Ag)	2016/12/08		96	%	80 - 120
			Total Sodium (Na)	2016/12/08		NC	%	80 - 120
			Total Strontium (Sr)	2016/12/08		NC	%	80 - 120
			Total Thallium (Tl)	2016/12/08		101	%	80 - 120
			Total Tin (Sn)	2016/12/08		103	%	80 - 120
			Total Titanium (Ti)	2016/12/08		NC	%	80 - 120

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Total Uranium (U)	2016/12/08		106	%	80 - 120
			Total Vanadium (V)	2016/12/08		97	%	80 - 120
			Total Zinc (Zn)	2016/12/08		NC	%	80 - 120
4783767	BAN	Spiked Blank	Total Aluminum (Al)	2016/12/08		103	%	80 - 120
			Total Antimony (Sb)	2016/12/08		99	%	80 - 120
			Total Arsenic (As)	2016/12/08		97	%	80 - 120
			Total Barium (Ba)	2016/12/08		94	%	80 - 120
			Total Beryllium (Be)	2016/12/08		97	%	80 - 120
			Total Bismuth (Bi)	2016/12/08		100	%	80 - 120
			Total Boron (B)	2016/12/08		100	%	80 - 120
			Total Cadmium (Cd)	2016/12/08		97	%	80 - 120
			Total Calcium (Ca)	2016/12/08		100	%	80 - 120
			Total Chromium (Cr)	2016/12/08		97	%	80 - 120
			Total Cobalt (Co)	2016/12/08		98	%	80 - 120
			Total Copper (Cu)	2016/12/08		98	%	80 - 120
			Total Iron (Fe)	2016/12/08		102	%	80 - 120
			Total Lead (Pb)	2016/12/08		97	%	80 - 120
			Total Magnesium (Mg)	2016/12/08		102	%	80 - 120
			Total Manganese (Mn)	2016/12/08		100	%	80 - 120
			Total Molybdenum (Mo)	2016/12/08		99	%	80 - 120
			Total Nickel (Ni)	2016/12/08		99	%	80 - 120
			Total Phosphorus (P)	2016/12/08		103	%	80 - 120
			Total Potassium (K)	2016/12/08		103	%	80 - 120
			Total Selenium (Se)	2016/12/08		96	%	80 - 120
			Total Silver (Ag)	2016/12/08		96	%	80 - 120
			Total Sodium (Na)	2016/12/08		99	%	80 - 120
			Total Strontium (Sr)	2016/12/08		101	%	80 - 120
			Total Thallium (Tl)	2016/12/08		99	%	80 - 120
			Total Tin (Sn)	2016/12/08		100	%	80 - 120
			Total Titanium (Ti)	2016/12/08		103	%	80 - 120
			Total Uranium (U)	2016/12/08		106	%	80 - 120
			Total Vanadium (V)	2016/12/08		98	%	80 - 120
			Total Zinc (Zn)	2016/12/08		96	%	80 - 120
4783767	BAN	Method Blank	Total Aluminum (Al)	2016/12/08	5.3, RDL=5.0		ug/L	
			Total Antimony (Sb)	2016/12/08	<1.0		ug/L	
			Total Arsenic (As)	2016/12/08	<1.0		ug/L	
			Total Barium (Ba)	2016/12/08	<1.0		ug/L	
			Total Beryllium (Be)	2016/12/08	<1.0		ug/L	
			Total Bismuth (Bi)	2016/12/08	<2.0		ug/L	
			Total Boron (B)	2016/12/08	<50		ug/L	
			Total Cadmium (Cd)	2016/12/08	<0.010		ug/L	
			Total Calcium (Ca)	2016/12/08	<100		ug/L	
			Total Chromium (Cr)	2016/12/08	<1.0		ug/L	
			Total Cobalt (Co)	2016/12/08	<0.40		ug/L	
			Total Copper (Cu)	2016/12/08	<2.0		ug/L	
			Total Iron (Fe)	2016/12/08	<50		ug/L	
			Total Lead (Pb)	2016/12/08	<0.50		ug/L	
			Total Magnesium (Mg)	2016/12/08	<100		ug/L	
			Total Manganese (Mn)	2016/12/08	<2.0		ug/L	
			Total Molybdenum (Mo)	2016/12/08	<2.0		ug/L	

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Total Nickel (Ni)	2016/12/08	<2.0		ug/L	
			Total Phosphorus (P)	2016/12/08	<100		ug/L	
			Total Potassium (K)	2016/12/08	<100		ug/L	
			Total Selenium (Se)	2016/12/08	<1.0		ug/L	
			Total Silver (Ag)	2016/12/08	<0.10		ug/L	
			Total Sodium (Na)	2016/12/08	<100		ug/L	
			Total Strontium (Sr)	2016/12/08	<2.0		ug/L	
			Total Thallium (Tl)	2016/12/08	<0.10		ug/L	
			Total Tin (Sn)	2016/12/08	<2.0		ug/L	
			Total Titanium (Ti)	2016/12/08	<2.0		ug/L	
			Total Uranium (U)	2016/12/08	<0.10		ug/L	
			Total Vanadium (V)	2016/12/08	<2.0		ug/L	
			Total Zinc (Zn)	2016/12/08	<5.0		ug/L	
4783767	BAN	RPD - Sample/Sample Dup	Total Cadmium (Cd)	2016/12/08	4.7		%	20
			Total Chromium (Cr)	2016/12/08	NC		%	20
			Total Lead (Pb)	2016/12/08	0.51		%	20
			Total Nickel (Ni)	2016/12/08	3.1		%	20
			Total Vanadium (V)	2016/12/08	0.82		%	20
			Total Zinc (Zn)	2016/12/08	0.024		%	20
4783779	BAN	Matrix Spike	Total Aluminum (Al)	2016/12/08		104	%	80 - 120
			Total Antimony (Sb)	2016/12/08		104	%	80 - 120
			Total Arsenic (As)	2016/12/08		95	%	80 - 120
			Total Barium (Ba)	2016/12/08		93	%	80 - 120
			Total Beryllium (Be)	2016/12/08		91	%	80 - 120
			Total Bismuth (Bi)	2016/12/08		101	%	80 - 120
			Total Boron (B)	2016/12/08		93	%	80 - 120
			Total Cadmium (Cd)	2016/12/08		99	%	80 - 120
			Total Calcium (Ca)	2016/12/08		NC	%	80 - 120
			Total Chromium (Cr)	2016/12/08		97	%	80 - 120
			Total Cobalt (Co)	2016/12/08		98	%	80 - 120
			Total Copper (Cu)	2016/12/08		96	%	80 - 120
			Total Iron (Fe)	2016/12/08		NC	%	80 - 120
			Total Lead (Pb)	2016/12/08		99	%	80 - 120
			Total Magnesium (Mg)	2016/12/08		98	%	80 - 120
			Total Manganese (Mn)	2016/12/08		NC	%	80 - 120
			Total Molybdenum (Mo)	2016/12/08		102	%	80 - 120
			Total Nickel (Ni)	2016/12/08		97	%	80 - 120
			Total Phosphorus (P)	2016/12/08		102	%	80 - 120
			Total Potassium (K)	2016/12/08		101	%	80 - 120
			Total Selenium (Se)	2016/12/08		98	%	80 - 120
			Total Silver (Ag)	2016/12/08		98	%	80 - 120
			Total Sodium (Na)	2016/12/08		93	%	80 - 120
			Total Strontium (Sr)	2016/12/08		NC	%	80 - 120
			Total Thallium (Tl)	2016/12/08		102	%	80 - 120
			Total Tin (Sn)	2016/12/08		104	%	80 - 120
			Total Titanium (Ti)	2016/12/08		96	%	80 - 120
			Total Uranium (U)	2016/12/08		105	%	80 - 120
			Total Vanadium (V)	2016/12/08		97	%	80 - 120
			Total Zinc (Zn)	2016/12/08		94	%	80 - 120
4783779	BAN	Spiked Blank	Total Aluminum (Al)	2016/12/08		99	%	80 - 120
			Total Antimony (Sb)	2016/12/08		103	%	80 - 120

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Total Arsenic (As)	2016/12/08		94	%	80 - 120
			Total Barium (Ba)	2016/12/08		92	%	80 - 120
			Total Beryllium (Be)	2016/12/08		90	%	80 - 120
			Total Bismuth (Bi)	2016/12/08		98	%	80 - 120
			Total Boron (B)	2016/12/08		91	%	80 - 120
			Total Cadmium (Cd)	2016/12/08		99	%	80 - 120
			Total Calcium (Ca)	2016/12/08		98	%	80 - 120
			Total Chromium (Cr)	2016/12/08		96	%	80 - 120
			Total Cobalt (Co)	2016/12/08		97	%	80 - 120
			Total Copper (Cu)	2016/12/08		96	%	80 - 120
			Total Iron (Fe)	2016/12/08		99	%	80 - 120
			Total Lead (Pb)	2016/12/08		99	%	80 - 120
			Total Magnesium (Mg)	2016/12/08		99	%	80 - 120
			Total Manganese (Mn)	2016/12/08		97	%	80 - 120
			Total Molybdenum (Mo)	2016/12/08		98	%	80 - 120
			Total Nickel (Ni)	2016/12/08		98	%	80 - 120
			Total Phosphorus (P)	2016/12/08		101	%	80 - 120
			Total Potassium (K)	2016/12/08		100	%	80 - 120
			Total Selenium (Se)	2016/12/08		96	%	80 - 120
			Total Silver (Ag)	2016/12/08		97	%	80 - 120
			Total Sodium (Na)	2016/12/08		93	%	80 - 120
			Total Strontium (Sr)	2016/12/08		101	%	80 - 120
			Total Thallium (Tl)	2016/12/08		101	%	80 - 120
			Total Tin (Sn)	2016/12/08		98	%	80 - 120
			Total Titanium (Ti)	2016/12/08		93	%	80 - 120
			Total Uranium (U)	2016/12/08		105	%	80 - 120
			Total Vanadium (V)	2016/12/08		97	%	80 - 120
			Total Zinc (Zn)	2016/12/08		93	%	80 - 120
4783779	BAN	Method Blank	Total Aluminum (Al)	2016/12/08	5.9, RDL=5.0		ug/L	
			Total Antimony (Sb)	2016/12/08	<1.0		ug/L	
			Total Arsenic (As)	2016/12/08	<1.0		ug/L	
			Total Barium (Ba)	2016/12/08	<1.0		ug/L	
			Total Beryllium (Be)	2016/12/08	<1.0		ug/L	
			Total Bismuth (Bi)	2016/12/08	<2.0		ug/L	
			Total Boron (B)	2016/12/08	<50		ug/L	
			Total Cadmium (Cd)	2016/12/08	<0.010		ug/L	
			Total Calcium (Ca)	2016/12/08	<100		ug/L	
			Total Chromium (Cr)	2016/12/08	<1.0		ug/L	
			Total Cobalt (Co)	2016/12/08	<0.40		ug/L	
			Total Copper (Cu)	2016/12/08	<2.0		ug/L	
			Total Iron (Fe)	2016/12/08	<50		ug/L	
			Total Lead (Pb)	2016/12/08	<0.50		ug/L	
			Total Magnesium (Mg)	2016/12/08	<100		ug/L	
			Total Manganese (Mn)	2016/12/08	<2.0		ug/L	
			Total Molybdenum (Mo)	2016/12/08	<2.0		ug/L	
			Total Nickel (Ni)	2016/12/08	<2.0		ug/L	
			Total Phosphorus (P)	2016/12/08	<100		ug/L	
			Total Potassium (K)	2016/12/08	<100		ug/L	
			Total Selenium (Se)	2016/12/08	<1.0		ug/L	
			Total Silver (Ag)	2016/12/08	<0.10		ug/L	

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Total Sodium (Na)	2016/12/08	<100		ug/L	
			Total Strontium (Sr)	2016/12/08	<2.0		ug/L	
			Total Thallium (Tl)	2016/12/08	<0.10		ug/L	
			Total Tin (Sn)	2016/12/08	<2.0		ug/L	
			Total Titanium (Ti)	2016/12/08	<2.0		ug/L	
			Total Uranium (U)	2016/12/08	<0.10		ug/L	
			Total Vanadium (V)	2016/12/08	<2.0		ug/L	
			Total Zinc (Zn)	2016/12/08	<5.0		ug/L	
4783779	BAN	RPD - Sample/Sample Dup	Total Aluminum (Al)	2016/12/08	1.3		%	20
			Total Antimony (Sb)	2016/12/08	NC		%	20
			Total Arsenic (As)	2016/12/08	NC		%	20
			Total Barium (Ba)	2016/12/08	2.2		%	20
			Total Beryllium (Be)	2016/12/08	NC		%	20
			Total Bismuth (Bi)	2016/12/08	NC		%	20
			Total Boron (B)	2016/12/08	NC		%	20
			Total Cadmium (Cd)	2016/12/08	9.8		%	20
			Total Calcium (Ca)	2016/12/08	1.6		%	20
			Total Chromium (Cr)	2016/12/08	NC		%	20
			Total Cobalt (Co)	2016/12/08	1.4		%	20
			Total Copper (Cu)	2016/12/08	NC		%	20
			Total Iron (Fe)	2016/12/08	1.1		%	20
			Total Lead (Pb)	2016/12/08	NC		%	20
			Total Magnesium (Mg)	2016/12/08	0.40		%	20
			Total Manganese (Mn)	2016/12/08	0.15		%	20
			Total Molybdenum (Mo)	2016/12/08	NC		%	20
			Total Nickel (Ni)	2016/12/08	NC		%	20
			Total Phosphorus (P)	2016/12/08	NC		%	20
			Total Potassium (K)	2016/12/08	0.48		%	20
			Total Selenium (Se)	2016/12/08	NC		%	20
			Total Silver (Ag)	2016/12/08	NC		%	20
			Total Sodium (Na)	2016/12/08	1.2		%	20
			Total Strontium (Sr)	2016/12/08	1.4		%	20
			Total Thallium (Tl)	2016/12/08	NC		%	20
			Total Tin (Sn)	2016/12/08	NC		%	20
			Total Titanium (Ti)	2016/12/08	NC		%	20
			Total Uranium (U)	2016/12/08	NC		%	20
			Total Vanadium (V)	2016/12/08	NC		%	20
			Total Zinc (Zn)	2016/12/08	NC		%	20
4783970	VRO	Matrix Spike(DOU942)	Tannins & Lignins	2016/12/08		NC	%	80 - 120
4783970	VRO	Spiked Blank	Tannins & Lignins	2016/12/08		94	%	80 - 120
4783970	VRO	Method Blank	Tannins & Lignins	2016/12/08	<0.2		mg/L	
4783970	VRO	RPD - Sample/Sample Dup	Tannins & Lignins	2016/12/08	0.93		%	25
4785636	JMV	QC Standard	pH	2016/12/09		100	%	97 - 103
4785636	JMV	RPD - Sample/Sample Dup	pH	2016/12/09	0.040		%	N/A
4785637	JMV	Spiked Blank	Conductivity	2016/12/09		101	%	80 - 120
4785637	JMV	Method Blank	Conductivity	2016/12/09	1.2, RDL=1.0		uS/cm	
4785637	JMV	RPD - Sample/Sample Dup	Conductivity	2016/12/10	0.57		%	25
4785841	ZZH	Matrix Spike	Total Chemical Oxygen Demand	2016/12/09		106	%	80 - 120
4785841	ZZH	QC Standard	Total Chemical Oxygen Demand	2016/12/09		98	%	80 - 120
4785841	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2016/12/09		102	%	80 - 120

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A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4785841	ZZH	Method Blank	Total Chemical Oxygen Demand	2016/12/09	<20		mg/L	
4786323	RTY	Matrix Spike	Total Kjeldahl Nitrogen (TKN)	2016/12/15		103	%	80 - 120
4786323	RTY	QC Standard	Total Kjeldahl Nitrogen (TKN)	2016/12/15		102	%	80 - 120
4786323	RTY	Spiked Blank	Total Kjeldahl Nitrogen (TKN)	2016/12/15		101	%	80 - 120
4786323	RTY	Method Blank	Total Kjeldahl Nitrogen (TKN)	2016/12/15	<0.10		mg/L	
4786323	RTY	RPD - Sample/Sample Dup	Total Kjeldahl Nitrogen (TKN)	2016/12/15	NC		%	20
4787438	JMV	QC Standard	pH	2016/12/10		101	%	97 - 103
4787438	JMV	RPD - Sample/Sample Dup	pH	2016/12/10	0.51		%	N/A
4787439	JMV	Spiked Blank	Conductivity	2016/12/10		104	%	80 - 120
4787439	JMV	Method Blank	Conductivity	2016/12/10	1.6, RDL=1.0		uS/cm	
4787439	JMV	RPD - Sample/Sample Dup	Conductivity	2016/12/10	0.26		%	25
4787440	JMV	QC Standard	pH	2016/12/10		101	%	97 - 103
4787440	JMV	RPD - Sample/Sample Dup	pH	2016/12/10	1.2		%	N/A
4787441	JMV	Spiked Blank	Conductivity	2016/12/10		106	%	80 - 120
4787441	JMV	Method Blank	Conductivity	2016/12/10	1.5, RDL=1.0		uS/cm	
4787441	JMV	RPD - Sample/Sample Dup	Conductivity	2016/12/10	0.00077		%	25
4788123	ZZH	Matrix Spike	Total Chemical Oxygen Demand	2016/12/12		99	%	80 - 120
4788123	ZZH	QC Standard	Total Chemical Oxygen Demand	2016/12/12		96	%	80 - 120
4788123	ZZH	Spiked Blank	Total Chemical Oxygen Demand	2016/12/12		102	%	80 - 120
4788123	ZZH	Method Blank	Total Chemical Oxygen Demand	2016/12/12	<5.0		mg/L	
4788123	ZZH	RPD - Sample/Sample Dup	Total Chemical Oxygen Demand	2016/12/12	NC		%	25
4788296	MCN	Matrix Spike	Total Phosphorus	2016/12/14		110	%	80 - 120
4788296	MCN	Spiked Blank	Total Phosphorus	2016/12/14		97	%	80 - 120
4788296	MCN	Method Blank	Total Phosphorus	2016/12/14	0.021, RDL=0.020		mg/L	
4788296	MCN	RPD - Sample/Sample Dup	Total Phosphorus	2016/12/14	NC		%	25
4788298	MCN	Matrix Spike	Total Phosphorus	2016/12/14		NC	%	80 - 120
4788298	MCN	Spiked Blank	Total Phosphorus	2016/12/14		94	%	80 - 120
4788298	MCN	Method Blank	Total Phosphorus	2016/12/14	0.022, RDL=0.020		mg/L	
4788298	MCN	RPD - Sample/Sample Dup	Total Phosphorus	2016/12/14	2.0		%	25
4789758	JMV	QC Standard	Turbidity	2016/12/13		89	%	80 - 120
4789758	JMV	Spiked Blank	Turbidity	2016/12/13		95	%	80 - 120
4789758	JMV	Method Blank	Turbidity	2016/12/13	<0.10		NTU	
4789758	JMV	RPD - Sample/Sample Dup	Turbidity	2016/12/13	NC		%	20
4790246	MM9	QC Standard	Total Suspended Solids	2016/12/15		95	%	80 - 120
4790246	MM9	Method Blank	Total Suspended Solids	2016/12/15	<1.0		mg/L	
4790246	MM9	RPD - Sample/Sample Dup	Total Suspended Solids	2016/12/15	9.1		%	25
4790390	ARS	Matrix Spike	Total Mercury (Hg)	2016/12/14		102	%	80 - 120
4790390	ARS	Spiked Blank	Total Mercury (Hg)	2016/12/14		101	%	80 - 120
4790390	ARS	Method Blank	Total Mercury (Hg)	2016/12/14	<0.013		ug/L	
4790390	ARS	RPD - Sample/Sample Dup	Total Mercury (Hg)	2016/12/14	NC		%	20
4790482	CRA	Matrix Spike	Phenols-4AAP	2016/12/13		NC	%	80 - 120
4790482	CRA	Spiked Blank	Phenols-4AAP	2016/12/13		101	%	80 - 120
4790482	CRA	Method Blank	Phenols-4AAP	2016/12/13	<0.0010		mg/L	
4790482	CRA	RPD - Sample/Sample Dup	Phenols-4AAP	2016/12/13	8.2		%	25
4791700	AAY	Matrix Spike	Total Kjeldahl Nitrogen (TKN)	2016/12/15		NC	%	N/A
4791700	AAY	QC Standard	Total Kjeldahl Nitrogen (TKN)	2016/12/15		93	%	N/A
4791700	AAY	Spiked Blank	Total Kjeldahl Nitrogen (TKN)	2016/12/15		97	%	80 - 120

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Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4793715	NRG	Method Blank	Nitrate + Nitrite (N)	2016/12/15	<0.050		mg/L	
4793715	NRG	RPD - Sample/Sample Dup	Nitrate + Nitrite (N)	2016/12/15	NC		%	25
4793716	NRG	Matrix Spike	Nitrite (N)	2016/12/19		99	%	80 - 120
4793716	NRG	Spiked Blank	Nitrite (N)	2016/12/19		102	%	80 - 120
4793716	NRG	Method Blank	Nitrite (N)	2016/12/19	<0.010		mg/L	
4793716	NRG	RPD - Sample/Sample Dup	Nitrite (N)	2016/12/19	NC		%	25
4793912	SMT	Matrix Spike	Dissolved Organic Carbon (C)	2016/12/15		109	%	80 - 120
4793912	SMT	Spiked Blank	Dissolved Organic Carbon (C)	2016/12/15		99	%	80 - 120
4793912	SMT	Method Blank	Dissolved Organic Carbon (C)	2016/12/15	<0.50		mg/L	
4793912	SMT	RPD - Sample/Sample Dup	Dissolved Organic Carbon (C)	2016/12/15	0.45		%	20

N/A = Not Applicable

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Elevated reporting limit due to sample matrix.

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A Bureau Veritas Group Company

Maxxam Job #: B6Q5928
Report Date: 2016/12/19

Englobe Corp.
Client Project #: P-0011638-0-01-201
Site Location: NEW ERA
Your P.O. #: A07332
Sampler Initials: AS

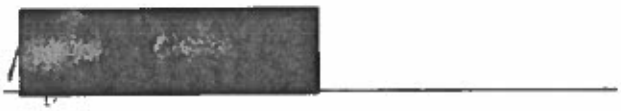
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Kevin MacDonald, Inorganics Supervisor

Mike MacGillivray, Scientific Specialist (Inorganics)



Robyn Edwards, Bedford Micro Supervisor

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Chain Of Custody Record

Page [illegible] of [illegible]

INVOICE TO:

Company Name	#41008 Engtobe Corp.
Contact Name	Accounts Payable
Address	97 Troop Ave
	Dartmouth NS B3B 2A7
Phone	(902) 468-6486 Fax (902) 468-4919
Email	Dartmouth AP@[illegible]corp.com

Report Information

Company Name	
Contact Name	Avan, Lisa, Alexandra
Address	
Phone	Fax
Email	[illegible]@[illegible]corp.com, Avan.Cole@[illegible]

Project Information

Quotation #	B44807
P.O. #	
Project #	P-0011853-0-00-201
Project Name	
Site #	NEW ERA
Sampled By	A.S.

Laboratory Use Only

Maxxam Job #	Bottle Order #
B6A5423	[illegible]
Chain Of Custody Record	Project Manager
C46[illegible]-01-02	Avery [illegible]

Regulatory Criteria

Special Instructions

Turnaround Time (TAT) Required

Regular (Standard) TAT: [illegible]

Job Specific Rush TAT (if applies to entire submission)

Date Required: Time Required:

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered & Preserved	Lab Filtration Required	Nitrogen TKN - water (as N)	Phosphorus Total Colourimetry	Phenols (4-AAP)	Total Dissolved Solids (Filt. Residue)	Tannins & Lignins	TC/EC Drinking Water CFU/100mL	# of Bottles	Comments
1	[illegible]	~~LINER SUMP~~													
2	[illegible]	MW1R	16/12/6	12:00				x	x	x					
3	[illegible]	MW2		1:00											
4	[illegible]	MW3		12:30				x	x	x					
5	[illegible]	MW6		2:30				x	x	x					
6	[illegible]	MW7S		2:00				x	x	x					
7	[illegible]	MW7D		2:10				x	x	x					
8	[illegible]	MW9		2:45				x	x	x					
9	[illegible]	SW3		3:30				x	x	x	x	x			
10	[illegible]	SW7						x	x	x	x	x			

RELINQUISHED BY: (Signature/Print)	Date (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date (YY/MM/DD)	Time	# jars used and not submitted
[redacted]	[illegible]/12/6		[redacted]			
	[illegible]/12/6					

Lab Use Only: Time Sensitive ☐ | Temperature (°C) on Receipt: 3,3,1 / 1,3,1 | Custody Seal Intact on Cooler? ☐ Yes ☐ No

[illegible] ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Chain Of Custody Record

INVOICE TO:

Company Name	#41039 Engtobe Corp
Contact Name	Accounts Payable
Address	97 Troop Ave
	Dartmouth NS B3B 2A7
Phone	(902) 468-6486
Fax	(902) 468-4919
Email	Dartmouth AP@[illegible].com

Report Information

Company Name	
Contact Name	Aven, Lisa, Alexandra
Address	
Phone	
Email	lisa [illegible].com, Aven [illegible]

Project Information

Quotation #	B44807
P.O. #	
Project #	P-0011680-0-00-201
Project Name	
Site #	NEW ERA
Sampled By	[redacted]

Laboratory Use Only

Maxxam Job #	Bottle Order #
B6Q5926	
Chain Of Custody Record	Project Manager
C[illegible]-02-01	Avery [illegible]

Turnaround Time (TAT) Required

Regular (Standard) TAT

Job Specific Rush TAT

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered & Preserved	Lab Filtration Required	Carbonaceous BOD	Total Suspended Solids	Fecal coliform in water (CFU/100 mL)	Nitrogen Ammonia - water	pH	RCAp-MS (Field Filt. (Dissolved metals incl. Cd, Pb, Nitrate/Nitrite)	Dissolved Organic carbon (DOC) (as acid - field filtered)	Chemical Oxygen Demand (COD)	RCAp-MS Total Metals in Water	Mercury - Total (CVAA,LL)	# of Bottles	Comments
1		SWB	16/12/6	1:30pm	water			X	X						X	X	X		
2		WELL WATER	16/12/6	4:00pm	water											X			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

RELINQUISHED BY: (Signature/Print)	Date (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Alexandra Stevenson	16/12/6		[redacted]				☐	3,3,1/7,3,4	☐ Yes ☐ No
[redacted]	16/12/6								

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

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Chain Of Custody Record

Page 4 of 4

INVOICE TO:		Report Information		Project Information	
Company Name	841009 Englobe Corp.	Company Name		Quotation #	B44807
Contact Name	Accounts Payable	Contact Name	Aven, Lisa, Alexandra	P.O. #	
Address	97 Troop Ave	Address		Project #	P-0011683-0-00-301
	Dartmouth NS B3B 2A7			Project Name	
Phone	(902) 468-6486 Fax (902) 468-4919	Phone	Fax	Site #	NEW ERA
Email	Dartmouth.AP@englobecorp.com	Email	lisa.lanteigne@englobecorp.com, Aven.Cole@englobe	Sampled By	[redacted]

Laboratory Use Only: Maxxam Job # 3G&5928 — Bottle Order # — Chain Of Custody Record — Project Manager

Regulatory Criteria

Special Instructions

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered & Preserved	Lab Filtration Required	Nitrogen TKN - water (as N)	Phosphorus Total Colourimetry	Phenols (4-AAP)	Total Dissolved Solids (Filt. Residue)	Tannins & Lignins	TC/EC Drinking Water CFU/100mL					Comments
1		SWS	16/12/6	1:30pm	water			x	x	x	x	x						
2		WELL WATER	16/12/6	4:00pm	water								x					
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (TAT) Required

Regular (Standard) TAT

Job Specific Rush TAT

RELINQUISHED BY: (Signature/Print)	Date (YY/MM/DD)	Time			Time	# jars used and not submitted	Lab Use Only	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted]	16/12/6	[redacted]						3,3,1/7,7,4,1	Yes ☐ No ☐
	16/12/16								

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

Maxxam Analytics International Corporation o/a Maxxam Analytics

AIM ENVIRONMENTAL GROUP

Intelligent Strategies. One Source. Dependable Results

Attachment 5

New Era Quarterly Floor Inspection Reports
April 2016 and July 2016

New Era
Technologies

April 12, 2016

New Era Technologies Ltd
61 Evergreen Place
Goodwood, NS
B3T 1P2

Re: Repair of cracks in concrete slab & wall
2016/2017 Crack injection Maintenance Program
Re: Curing and Receiving buildings

In January, February and March of 2016, New Era staff had participated in the thorough inspection and selection of cracks to be repaired in the concrete floor and portion of foundation wall where material are flipped and stored through its processes as per the attached schedule for the Curing Building.

The Receiving Building floor was inspected and repaired as part of 2016 maintenance program suggested in Feb 2016.

Injection of the cracks completed by drilling crossways through suspect cracks at staggered distances of approximate 4 inches apart on each side of the crack. After the holes are blown out, plastic packers are firmly hammered into place and a fitting mounted to the top of the packer. A flushing agent made up of one part acid wash with twenty parts water is injected through the crack and there afterwards flushed with just water. The prescribed Polyurethane mixtures are injected which also reacts with the water creating a flexible compression seal through the entirety of the crack(s) as it expands and cures., packers are removed a day or two later and holes are filled with hydraulic cement to cover cured resin. This polyurethane flexible resin supplied by "Multiurethanes Ltd" Mississauga, Ontario purchased through Bird Stairs Construction Ltd, Dartmouth, NS.

All injection pumps, injection materials, pre washes, packers, and assistance supplied by Bird Stairs.

Regards,

New Era Technologies

[redacted]

Darren Evans
Plant Manager

61 Evergreen Place, Goodwood, NS B3T 1P2 Tel:(902) 876-5185 Fax:(902) 876-5163
newera@ns.sympatico.ca

Curing Building Floor Inspections and Repairs

In January New Era decided to do the second 110-foot section from the west end of the Curing Building initially scheduled for March of 2016. This was necessary to repair a broken supply air pipe in the foundation wall within this section, while making the repairs it was noted that some cracking was apparent in the foundation wall and so this section of wall and a 35 x 110-foot section of the floor received the prescribed maintenance and repairs with the polyurethane crack injection program.

In February of 2016 The first 110' section in the west end of the Curing Building floor was inspected and repaired as per permit requirements. This section of floor and wall foundation was completely pressure washed and thoroughly inspected. New Era staff drilled, flushed and repaired all visable cracks through the crack injection program using polyurethane flexible resin as supplied by Multiurethanes Ltd of Mississauga, Ontario.

During the last week of March 2016, New Era completely pressure washed and thoroughly inspected a remaining 40 x 110 foot section of the floor in the 2nd 110 foot section that was started in Jan. The inspections revealed that little to no further cracking had occurred from within the previous year of inspection and repairs, some pilot holes were drilled in key locations and found that only minor cracks were found in this section and were hairline which seemed to be only that of surface cracks.

Curing/Receiving Building Repair Schedule

2016-2017

East End

West End

140 ft. Scheduled for Apr 2016	80 ft. Scheduled for inspections/repairs Feb 2017	110 ft. Scheduled for inspections March 2016 **Completed in Jan and March -2016**	110 ft. Scheduled for inspections Feb. 2016 **Completed Feb - 2016**

New Era
Technologies

July 11, 2016

New Era Technologies Ltd
61 Evergreen Place
Goodwood, NS
B3T 1P2

Re: Receiving Hall floor and wall pour
2016/2017 Crack injection Maintenance Program

In April, 2016 New Era staff had participated in the thorough inspection and selection of cracks to be repaired in the concrete floor and portion of foundation wall where material are flipped and stored through its processes as per the attached schedule for the Curing Building with the exception of a 70 foot section which is scheduled to take place in October of 2016.

The Receiving Building floor was inspected and repaired previously as part of 2016 maintenance program suggested in Feb 2016. In May of 2016 extra repairs were made along the push wall and exterior walls along with the general area adjacent to and along the push wall.

Select Projects installed a new section of floor in the door 4 area up to behind the Grinder which included new steel floor slats for placement of the containers for loading , a new partial pipe and drain systems to replace the older deteriorated one and as well as a six inch concrete pour attached to the existing wall where materials are discharged and stored from the Grinder prior to loading into containerized system. Aside from the internal repairs within the Receiving Hall, the apron outside of Door #4 was broken out and replaced with new concrete.

Injection of the cracks completed by drilling crossways through suspect cracks at staggered distances of approximate 4 inches apart on each side of the crack. After the holes are blown out, plastic packers are firmly hammered into place and a fitting mounted to the top of the packer. A flushing agent made up of one part acid wash with twenty parts water is injected through the crack and there afterwards flushed with just water. The prescribed Polyurethane mixtures are injected which also reacts with the water creating a flexible compression seal through the entirety of the crack(s) as it expands and cures., packers are removed a day or two later and holes are filled with hydraulic cement to cover cured resin. This polyurethane flexible resin supplied by "Multiurethanes Ltd" Mississauga, Ontario purchased through Bird Stairs Construction Ltd, Dartmouth, NS.

61 Evergreen Place, Goodwood, NS B3T 1P2 Tel:(902) 876-5185 Fax:(902) 876-5163
newera@ns.sympatico.ca

Curing Building Floor Inspections and Repairs

In April of 2016 New Era was scheduled to perform a 140 foot inspections and or repairs in the Curing Building to finish off the crack repair schedule for 2016, however, due to mechanical issues with one of it machineries the full inspection could not be carried out as per suggested time schedule. 70 feet of the section was properly inspected and pilot holes were drilled in strategic places and next to past injection repairs. Our findings showed that there were little to no cracks which warranted extensive repairs and many of which were hairline cracks but mostly surface cracks and would not take injection materials. New Era did perform some wall cracks in this area where materials may be stored during the curing process in which there were three main cracks which spanned upwards about 4 feet each.

The remaining 70 foot section is rescheduled to be assessed in Oct 2016 to fulfill permit requirements and will report our findings with those repairs that quarter.

Receiving Hall Repairs and Upgrades

As suggested in previous quarterly report New Era incorporated the assistance of Select Projects in which a one quarter section of Floor in the Receiving Hall was broken out and a new high strength concrete slab section was poured. This also included installation of a 1 inch thick steel plate steel to accommodate the containers that are set into place for lid removal and loading of ground feedstock in door #4. .Also at this time Select Projects performed and installed a new drain and partial pipe repair which was warranted to replace the old one which was deteriorated. Further to this in the area where feedstock is ground and discharged from the Grinder, New Era had a 6 inch wall spanning approx 30 feet poured and attached to the existing wall as this was showing signs of very visible wear and tear. Along with the new floor slab installation the apron outside of door #4 was broken out and replaced with new concrete as well.

While this work was being performed by contractors New Era Staff also performed wall and crack injections on its push wall and two of the exterior walls and a section of floor in general area of the push wall in the receiving hall through the crack injection program using polyurethane flexible resin as supplied by Multiurethanes Ltd of Mississauga, Ontario.

Receiving Hall Repairs and Upgrades

Although the Receiving Building floor has received crack inspections and injection repairs to its floors and some wall area in both Feb and June of 2016, we will be reviewing the recent floor and wall concrete pour that was completed in June of 2016 regardless, this to take place in March and April of 2017

Previous

Curing/Receiving Building Repair Schedule 2016-2017

West End

East End

70 Ft. **Completed in April 2016**	70 ft. Scheduled for Oct 2016	80 ft. Scheduled for inspections/repairs Feb 2017	110 ft. Scheduled for inspections March 2016 **Completed in Jan and March -2016**	110 FT. Scheduled for inspections Feb. 2016 **Completed Feb - 2016**

Receiving Hall

In February of 2016, thorough inspections of both floor and foundation walls were carried out in all areas where feedstock and ground materials may be temporarily stored and or processed. The Receiving Hall floor was inspected and repaired as per permit requirements. This section of floor and wall foundation was completely pressure washed and thoroughly inspected. New Era staff drilled, flushed and repaired all visable cracks through the crack injection program using polyurethane flexible resin as supplied by Multiurethanes Ltd of Mississauga, Ontario.

In May or June of 2016, when weather and or tonnage permits, a remaining one quarter section of the Tip Floor and outside apron of Door #4 is scheduled to be broken out and another slab floor poured along with new structural steel slide rails to accomodate the Invessel containers that frequent this area in order to lift the container lids off, this is also our crane area. These steel rails are badly worn and require replacing. Further to this a new slightly relocated drain is to be installed which will replace an older and deteriorating one.

Screening Building

The Screening Building floor remains in good shape and has some minimal wear and tear under the overs belt of the Screener unit, this will be monotored, however discussions with future capital plans are to include a possible new steel structure and roof upgrade along with any repairs that may be deemed warranted.

All injection pumps, injection materials, pre washes, packers, and assistance supplied by Bird Stairs.

All new concrete and pipe work done through contractors of Select Projects Ltd.

Regards,

New Era Technologies [redacted]

Darren Evans
Plant Manager

61 Evergreen Place, Goodwood, NS B3T 1P2 Tel:(902) 876-5185 Fax:(902) 876-5163
newera@ns.sympatico.ca