测试报告

Test Report

报告编号（Report ID）：ZX230615-C010103

样品名称（Sample Name）：厌氧生物降解塑料 PA6（GP6095F）纺丝

委托单位（Client）：格域新材料科技（江苏）有限公司

测试类型（Test Type）：委托测试

测试要求（Test Requirement）：按照委托方要求测试

分析结果（Test Result）：见后页

编制 袁梦娜 审核 臧晓晓 签发 姜芝

研究测试报告

（Research Test Report）

研究测试结果(Research Test Result):

一、测试样品：厌氧生物降解塑料 PA6（GP6095F）纺丝

二、测试周期：2023.07.03-2023.10.03

三、测试方法：ASTM D5511-12 塑料材料在高固体厌氧消化条件下厌氧生物降解测定标准试验方法

四、接种物的准备：接种物以经过厌氧消化处理的家庭垃圾作为单一原料，相应的有机碎片粒径小于 60mm，接种物来自于干燥条件下的厌氧消化处理。准备好的接种物在同样的操作温度下进行大约 7d 的短期发酵，以确保在大型易分解样品分解期间，降低接种物自身生物分解的总体水平。

五、试验材料和参比材料的准备：测定试验材料和参比材料的总有机碳含量，每个容器内 20g 总干固体至少含有 8g 总有机碳。试验材料为厌氧生物降解塑料 PA6（GP6095F）纺丝，粒径小于 250μm。

六、试验过程：把足够的接种物（约 10kg）从发酵容器中取出，手工混合均匀。各容器每加入湿重 1kg 的接种物，加入含有 15~20g 挥发性固体的试验材料或参比材料。每个容器最少加入 500g 湿重的接种物，搅拌 2~3min。3 个空白容器中仅装入接种物，使用与试验材料和参比材料相同的力度，手工搅拌 2~3min。将混合物导入消化容器，分散并轻轻按压，使其各处密度一致。将容器放入水浴或培养箱中并与气体检测或气体收集系统相连接，搅拌与连接的总时长不超过 2h，打开水浴加热装置。

研究测试报告

（Research Test Report）

研究检测结果(Research Test Result):

消化容器在温度 52±2°C 黑暗或弱光条件下培养 15d。测量不同时间间隔的生物气体产生量，试验前期需要频繁观察测定，随时间变化可减少观察次数。

试验结束时将消化容器冷却至室温，确定试验的总产气量，记录室温和气压。开始 15 天内，每 3 天测定一次气体产生量，之后每 5 天测一次。

七、试验结果有效性确认

1、试验 30d 后参比材料的生物分解率超过 70%；

2、试验结束后，每个参比材料消化容器的生物分解率与平均值之间的偏差不超过 20%。

八、试验结论

项目	根据释放出的碳量计算平均生物分解率（90d），%	观测
试验样品	71.4	大部分已分解
参比材料	95.8	几乎全部分解

项目	试验材料降解率/参比材料降解率（90d），%
相对降解率	74.5

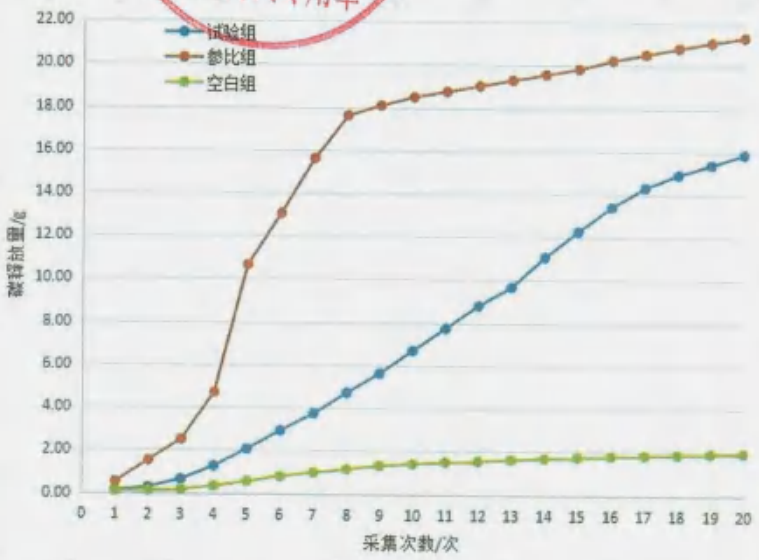
研究测试报告

（Research Test Report）

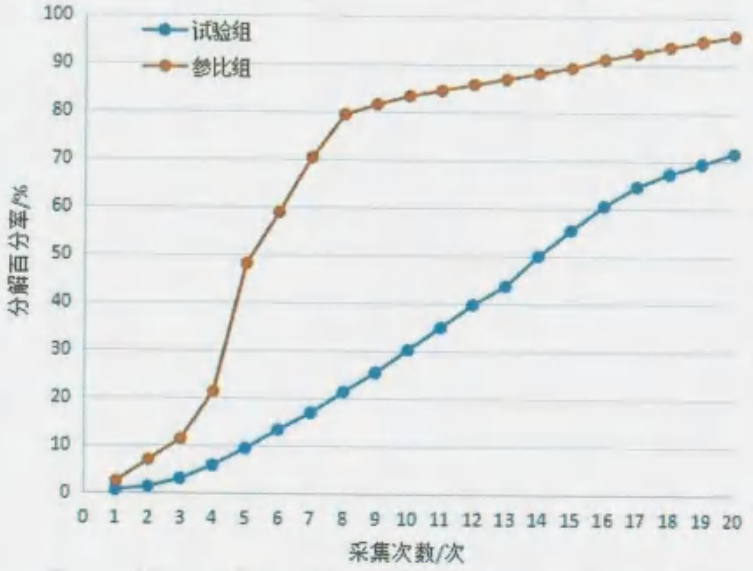
研究测试结果(Research Test Result):

九、试验数据

1、气体（碳）释放量曲线



2、生物分解率曲线



报告编号（Report ID）:ZX230615-C010103　　日期（Date）:2023.10.10　　

样品图片（Sample Picture）：

扫描查询报告真伪

报告结束

(END)

注意事项

1.服务双方必须遵守分析委托登记表/服务合同中服务通用条款的规定；

Both parties must comply with the provisions of the general service terms in the analysis of entrusted registration form/service contract;

2.本报告无服务方签字人签名无效；未加盖"北京中科光析科学技术研究所"科研测试专用章一律无效；

The report is invalid without the signature of the responsible person of the service party;The report is invalid without the special seal for scientific research and test of "Beijing ZKGX Research Institute of Science and Technology";

3.由此测试申请所发出的任何结果，服务方会严格地为委托方保密。除非相关政府部门、法律或法院要求，否则未经委托方同意，服务方不得就结果内容向第三方讨论或披露；

Any result of the test application will be strictly confidential to the client.Unless required by relevant government departments, laws or courts, the service party shall not discuss or disclose the results to any third party without the consent of the principal;

4.本报告全部或部分复制、私自转让、盗用、冒用、涂改或以其它任何形式篡改的均属无效，本单位将对上述行为严究其相应法律责任。

Any copy, transfer, misappropriation, false use, alteration or any other form of tampering of the report in whole or in part is invalid. The service party shall strictly investigate the corresponding legal liability for the above-mentioned acts

5.测试结果得出的数据或结论是基于特定的时间、特定的方法以及特定的适用标准对测试样品特征、成份、性能或质量进行的描述，采用不同的方法和标准、在不同的环境条件下对样品进行测试有可能得出不同的结论；本报告为研究测试报告，会参考相关标准的原理，但根据实际情况可能并非完全依据标准进行，结果仅供参考。

The data or conclusions derived from the test results are descriptions of the characteristics, components, performance or quality of the test samples based on the specific time, method and applicable standards, using different methods and standards, in different environmental conditions to detect samples may lead to different conclusions;This report is a research test report, which will refer to the principles of relevant standards, but may not be carried out according to the actual situation, and the results are for reference only.

6.服务方接受样品进行测试的前提是，委托方不能将该测试报告做为进行法律行动的依据；

The premise that the service party accepts the sample for testing is that the client cannot use the test report as a basis for legal action;

7.测试结果仅代表送检样品，不对送检样品所代表的批量负责；样品来源信息由委托方提供，并保证来源信息的真实性，服务方不负责其真实性；本报告有效期 12 个月。

The test result only represents the sample sent for inspection, and shall not be responsible for the batch represented by the sample sent for inspection; The sample source information shall be provided by the client and the authenticity of the source information shall be guaranteed. The service party shall not be responsible for its authenticity; The present report is valid for 12 months.

8.本报告仅对所测样品的测试结果负责，测试数据仅反映对该样品的评价且仅用于委托方科研、教学或内部质量控制、企业产品研发等目的；出具的检测数据结果仅限定为特定委托方内部使用，不对社会具有证明作用，不得用于维权、纠纷、司法等法律用途，对于测试数据的使用、使用所产生的直接或间接损失及一切法律后果，服务方不承担任何经济和法律责任。

This report is only responsible for the test results of the tested samples, and the test data only reflect the evaluation of the samples and are only used for the purposes of scientific research, teaching or internal quality control, enterprise product development, etc. The test results issued are limited to the internal use of specific clients, and have no proof role for the society, can't be used for legal purposes such as safeguarding rights, disputes, judicature, etc.The service party shall not assume any economic and legal liability for the use of test data, direct or indirect losses caused by the use and all legal consequences.

9.由于服务方的原因导致需要对测试结果内容进行更改的，服务方应当重新为委托方出具测试结果，并承担更改测试结果产生的费用，委托方向服务方交还原测试结果。由于委托方自身的原因导致需要对测试结果内容进行更改的，委托方应当向服务方提出修改申请。经服务方审核同意予以重新出具测试结果的，相关费用由委托方承担，委托方向服务方交还原测试结果。

If the content of the test results needs to be changed due to the reasons of the service party, the service party shall issue the test results for the applicant again, and bear the cost of changing the test results, and entrust the service party to submit the restore test results. If the content of the test results needs to be changed due to the reasons of the applicant, the applicant shall submit an application for modification to the service party. If the test result is re-issued after the examination and approval of the service party, the related expenses shall be borne by the applicant, and the applicant shall submit the test result to the service party for restoration.

ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

To: Green Packaging Technology Co., Ltd.

Report Number: 0526220722A

Date: May 26, 2022

From: Thomas Poth - Eden Research Laboratory

Eden Research Laboratory

Report

Regarding: 159 week study of the Green Packaging Technology Co., Ltd. Clear Film Sample - ERL#2229.

RESULTS

Thermophilic study for biodegradation, during a 159 week period, of two TekPak BioFoil Clear samples resulted in 94.1% biodegradation.

METHOD

The degree and rate of anaerobic biodegradability of a plastic type material may be predictive of the period required to reduce the proposed plastic from the environment depending on the given conditions. Where disposal is considered a major issue, this method may be useful to estimate the degree and persistence of biodegradable plastic in a biologically active anaerobic disposal situation. As stated in ASTM D5511, this method may also resemble some conditions in biologically active landfills where the gas generated is recovered and biogas production is actively promoted by inoculation (for example, of anaerobic sewage sludge, anaerobic leachate recirculation), moisture control (for example, leachate recirculation), and temperature control (for example, short-term injection of oxygen, heating of recirculated leachate)

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ASTM method D5511-12 determines the degree of anaerobic biodegradation of plastic materials in a high-solids anaerobic conditions. The sample is exposed to methanogenic inoculum cultivated from a wastewater treatment facility's anaerobic digesters and post consumer pretreated household waste. Anaerobic decomposition in this case employs a high solids environment. High solids conditions are usually considered to be greater than 20% solids. The sample conditions remain static.

This method is designed to yield a percentage of conversion of carbon in the sample to carbon in the gaseous form under conditions found in high-solids anaerobic digesters, treating municipal solid waste. This can be validated using change in mass of the original sample. This method is also designed to resemble many conditions in a biologically active landfill. This method is applicable to all plastic materials that are not toxic to microorganisms present in wastewater treatment facility's anaerobic digesters that are operating on household waste.

ASTM Method D5511 determines the rate and degree of anaerobic biodegradation by measuring the volume of carbon dioxide (CO_2) and methane (CH_4), or change in mass as a function of time (days) of exposure to anaerobic-digester sludge. This method is considered an accelerated representation with respect to anaerobic environments. Landfill sites that plastics encounter in usual disposal methods are a prime example of this environment.

INOCULUM

1. Inoculum Characteristics and Preparation
    1. Sludge from Organic Compost – Bernalillo Municipal Compost Facility & Albuquerque Municipal Wastewater Facility
        1. Fifteen day hold period observed @ 53 ± 2°C
        2. Solid Content - 44.8% - The method allows anything greater than 20%.
        3. pH - 7.6 - 7.9
        4. Volatile Fatty Acids - 1.1 g/kg
        5. Ammonium Nitrogen 1.0 mg/kg

THEORETICAL CARBON

Sample	Percent Resin	Percent Carbon	Percent Additive	Percent Carbon	Total
2229	99.0	85.6	1.0	74.2	85.5

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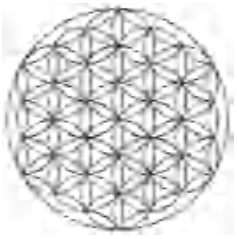
Weekly GAS VOLUMES - CONTROLS (mL) @ STP

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
May 7, 2019	365.6	240.6	305.4	615.4	263.8	120.3	3211.4	3067.9	3299.3
May 14, 2019	263.8	259.1	282.3	286.9	273.0	791.3	2855.0	2600.5	2605.2
May 21, 2019	78.7	69.4	78.7	115.7	83.3	78.7	967.1	883.8	791.3
May 28, 2019	152.7	162.0	162.0	32.4	152.7	162.0	911.6	1082.8	874.6
Jun 4, 2019	157.3	143.4	148.1	259.1	148.1	13.9	411.8	735.7	703.4
Jun 11, 2019	120.3	157.3	157.3	32.4	194.3	41.6	120.3	185.1	712.6
Jun 18, 2019	92.5	189.7	55.5	-9.3	55.5	27.8	231.4	208.2	476.6
Jun 25, 2019	13.9	18.5	37.0	13.9	13.9	18.5	254.5	166.6	27.8
Jul 2, 2019	23.1	18.5	9.3	23.1	18.5	13.9	41.6	162.0	18.5
Jul 9, 2019	23.1	13.9	13.9	0.0	9.3	9.3	74.0	171.2	18.5
Jul 16, 2019	9.3	23.1	9.3	18.5	18.5	23.1	101.8	148.1	27.8
Jul 23, 2019	13.9	13.9	18.5	27.8	23.1	18.5	32.4	41.6	13.9
Jul 30, 2019	13.9	13.9	13.9	9.3	27.8	37.0	254.5	-9.3	18.5
Aug 6, 2019	13.9	9.3	18.5	18.5	27.8	9.3	78.7	9.3	27.8
Aug 13, 2019	27.8	23.1	18.5	4.6	27.8	18.5	199.0	0.0	41.6
Aug 20, 2019	13.9	13.9	13.9	4.6	13.9	23.1	-13.9	0.0	9.3
Aug 27, 2019	13.9	9.3	13.9	18.5	18.5	9.3	180.5	13.9	23.1
Sep 3, 2019	9.3	18.5	13.9	13.9	4.6	13.9	-208.2	-4.6	13.9
Sep 10, 2019	23.1	13.9	9.3	23.1	13.9	9.3	13.9	9.3	46.3
Sep 17, 2019	18.5	18.5	13.9	13.9	18.5	9.3	23.1	0.0	32.4
Sep 24, 2019	4.6	13.9	23.1	18.5	13.9	18.5	18.5	-4.6	69.4
Oct 1, 2019	18.5	13.9	18.5	23.1	23.1	18.5	157.3	9.3	212.9
Oct 8, 2019	13.9	18.5	18.5	9.3	18.5	13.9	-9.3	-4.6	18.5
Oct 15, 2019	27.8	13.9	13.9	13.9	9.3	9.3	92.5	4.6	111.1
Oct 22, 2019	23.1	18.5	0.0	23.1	13.9	18.5	23.1	-4.6	41.6
Oct 29, 2019	13.9	18.5	18.5	13.9	27.8	13.9	74.0	0.0	106.4
Nov 5, 2019	9.3	27.8	13.9	18.5	4.6	18.5	4.6	0.0	64.8
Nov 12, 2019	18.5	13.9	18.5	18.5	4.6	13.9	32.4	4.6	32.4
Nov 19, 2019	13.9	9.3	27.8	9.3	9.3	9.3	32.4	4.6	-13.9
Nov 26, 2019	4.6	9.3	18.5	23.1	23.1	9.3	0.0	0.0	0.0
Dec 3, 2019	23.1	27.8	18.5	37.0	13.9	23.1	0.0	0.0	4.6
Dec 10, 2019	13.9	18.5	18.5	4.6	13.9	4.6	18.5	9.3	13.9
Dec 17, 2019	9.3	4.6	4.6	0.0	0.0	4.6	4.6	9.3	4.6
Dec 24, 2019	4.6	4.6	4.6	4.6	0.0	4.6	9.3	0.0	4.6
Dec 31, 2019	0.0	4.6	4.6	0.0	4.6	4.6	0.0	4.6	0.0
Jan 7, 2020	4.6	9.3	4.6	9.3	0.0	0.0	0.0	4.6	0.0
Jan 14, 2020	0.0	0.0	9.3	4.6	4.6	0.0	4.6	0.0	0.0
Jan 21, 2020	0.0	9.3	0.0	0.0	4.6	4.6	4.6	0.0	9.3
Jan 28, 2020	4.6	4.6	4.6	9.3	4.6	4.6	4.6	4.6	4.6
Feb 4, 2020	0.0	4.6	9.3	0.0	4.6	0.0	0.0	4.6	4.6
Feb 11, 2020	4.6	0.0	4.6	4.6	4.6	4.6	0.0	9.3	0.0
Feb 18, 2020	0.0	4.6	4.6	0.0	4.6	0.0	0.0	4.6	4.6



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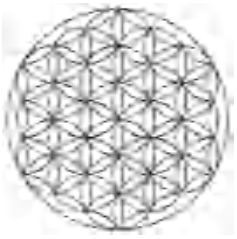
Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Feb 25, 2020	0.0	4.6	4.6	0.0	4.6	9.3	4.6	0.0	4.6
Mar 3, 2020	4.6	0.0	4.6	4.6	0.0	0.0	0.0	9.3	4.6
Mar 10, 2020	0.0	0.0	4.6	0.0	4.6	4.6	0.0	4.6	4.6
Mar 17, 2020	4.6	0.0	4.6	4.6	0.0	4.6	0.0	4.6	4.6
Mar 24, 2020	4.6	4.6	0.0	4.6	4.6	0.0	4.6	4.6	0.0
Mar 31, 2020	0.0	9.3	9.3	4.6	0.0	4.6	4.6	4.6	4.6
Apr 7, 2020	0.0	4.6	4.6	9.3	0.0	0.0	9.3	0.0	4.6
Apr 14, 2020	4.6	0.0	0.0	4.6	4.6	9.3	4.6	0.0	4.6
Apr 21, 2020	0.0	4.6	0.0	4.6	9.3	0.0	4.6	4.6	4.6
Apr 28, 2020	4.6	4.6	0.0	4.6	4.6	0.0	4.6	9.3	4.6
May 5, 2020	4.6	4.6	4.6	4.6	4.6	0.0	4.6	4.6	4.6
May 12, 2020	4.6	4.6	4.6	4.6	9.3	4.6	0.0	4.6	0.0
May 19, 2020	9.3	0.0	4.6	4.6	4.6	4.6	4.6	0.0	0.0
May 26, 2020	4.6	4.6	0.0	9.3	4.6	4.6	0.0	4.6	4.6
Jun 2, 2020	4.6	0.0	0.0	4.6	0.0	4.6	4.6	9.3	4.6
Jun 9, 2020	4.6	4.6	4.6	0.0	0.0	4.6	4.6	0.0	0.0
Jun 16, 2020	9.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Jun 23, 2020	4.6	4.6	4.6	0.0	4.6	4.6	0.0	9.3	4.6
Jun 30, 2020	4.6	0.0	0.0	4.6	4.6	4.6	4.6	9.3	0.0
Jul 7, 2020	0.0	0.0	0.0	9.3	0.0	4.6	0.0	4.6	4.6
Jul 14, 2020	0.0	0.0	9.3	4.6	0.0	4.6	0.0	4.6	4.6
Jul 21, 2020	4.6	4.6	0.0	4.6	4.6	4.6	4.6	9.3	9.3
Jul 28, 2020	4.6	0.0	4.6	0.0	0.0	4.6	4.6	0.0	4.6
Aug 4, 2020	9.3	0.0	0.0	9.3	0.0	4.6	4.6	9.3	9.3
Aug 11, 2020	4.6	0.0	0.0	0.0	4.6	4.6	0.0	0.0	4.6
Aug 18, 2020	4.6	4.6	4.6	0.0	9.3	0.0	4.6	4.6	9.3
Aug 25, 2020	0.0	0.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Sep 1, 2020	4.6	4.6	0.0	9.3	4.6	0.0	4.6	9.3	9.3
Sep 8, 2020	4.6	0.0	4.6	0.0	4.6	4.6	4.6	0.0	4.6
Sep 15, 2020	4.6	4.6	4.6	0.0	4.6	0.0	4.6	0.0	4.6
Sep 22, 2020	4.6	0.0	4.6	4.6	0.0	4.6	4.6	9.3	4.6
Sep 29, 2020	0.0	0.0	9.3	0.0	9.3	0.0	4.6	4.6	0.0
Oct 6, 2020	4.6	4.6	4.6	4.6	4.6	9.3	4.6	4.6	0.0
Oct 13, 2020	4.6	0.0	4.6	4.6	4.6	9.3	4.6	4.6	4.6
Oct 20, 2020	4.6	4.6	4.6	0.0	4.6	4.6	0.0	4.6	4.6
Oct 27, 2020	0.0	0.0	0.0	9.3	0.0	0.0	4.6	4.6	0.0
Nov 3, 2020	0.0	4.6	4.6	0.0	4.6	0.0	9.3	0.0	4.6
Nov 10, 2020	0.0	4.6	4.6	9.3	4.6	4.6	4.6	0.0	4.6
Nov 17, 2020	0.0	4.6	0.0	4.6	4.6	0.0	0.0	4.6	0.0
Nov 24, 2020	0.0	0.0	4.6	4.6	4.6	9.3	4.6	4.6	4.6
Dec 1, 2020	9.3	9.3	0.0	4.6	0.0	0.0	0.0	4.6	9.3
Dec 8, 2020	9.3	9.3	9.3	4.6	4.6	4.6	4.6	4.6	0.0
Dec 15, 2020	4.6	0.0	0.0	4.6	4.6	0.0	9.3	0.0	9.3



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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Dec 22, 2020	4.6	0.0	0.0	0.0	0.0	4.6	0.0	4.6	4.6
Dec 29, 2020	4.6	0.0	4.6	0.0	4.6	0.0	0.0	9.3	4.6
Jan 5, 2021	4.6	9.3	4.6	0.0	4.6	4.6	4.6	0.0	4.6
Jan 12, 2021	4.6	4.6	9.3	4.6	4.6	4.6	0.0	4.6	9.3
Jan 19, 2021	0.0	4.6	0.0	0.0	9.3	4.6	4.6	9.3	0.0
Jan 26, 2021	0.0	4.6	4.6	4.6	0.0	0.0	4.6	4.6	4.6
Feb 2, 2021	4.6	9.3	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Feb 9, 2021	9.3	4.6	4.6	9.3	4.6	4.6	0.0	4.6	0.0
Feb 16, 2021	4.6	4.6	4.6	0.0	4.6	4.6	0.0	4.6	4.6
Feb 23, 2021	4.6	0.0	0.0	4.6	4.6	4.6	4.6	0.0	4.6
Mar 2, 2021	0.0	0.0	4.6	4.6	0.0	0.0	0.0	0.0	0.0
Mar 9, 2021	4.6	4.6	0.0	4.6	4.6	4.6	4.6	9.3	0.0
Mar 16, 2021	4.6	0.0	0.0	4.6	9.3	4.6	4.6	0.0	4.6
Mar 23, 2021	0.0	9.3	4.6	9.3	9.3	0.0	4.6	4.6	0.0
Mar 30, 2021	4.6	4.6	9.3	4.6	4.6	4.6	4.6	0.0	0.0
Apr 6, 2021	4.6	9.3	4.6	4.6	0.0	4.6	0.0	9.3	4.6
Apr 13, 2021	4.6	4.6	0.0	0.0	0.0	0.0	9.3	4.6	4.6
Apr 20, 2021	0.0	4.6	4.6	4.6	4.6	4.6	4.6	9.3	9.3
Apr 27, 2021	9.3	0.0	9.3	4.6	0.0	4.6	4.6	4.6	4.6
May 4, 2021	0.0	0.0	4.6	0.0	4.6	4.6	4.6	4.6	0.0
May 11, 2021	4.6	4.6	4.6	4.6	4.6	4.6	4.6	0.0	4.6
May 18, 2021	4.6	0.0	4.6	4.6	9.3	0.0	4.6	4.6	4.6
May 25, 2021	4.6	4.6	4.6	4.6	0.0	0.0	4.6	4.6	0.0
Jun 1, 2021	0.0	4.6	4.6	0.0	4.6	4.6	4.6	4.6	0.0
Jun 8, 2021	4.6	4.6	0.0	4.6	9.3	0.0	4.6	0.0	4.6
Jun 15, 2021	0.0	4.6	0.0	4.6	0.0	0.0	4.6	0.0	0.0
Jun 22, 2021	0.0	0.0	0.0	0.0	4.6	4.6	0.0	0.0	0.0
Jun 29, 2021	0.0	9.3	4.6	4.6	4.6	0.0	4.6	0.0	4.6
Jul 6, 2021	0.0	4.6	0.0	4.6	4.6	0.0	0.0	0.0	4.6
Jul 13, 2021	4.6	4.6	4.6	4.6	0.0	4.6	4.6	0.0	4.6
Jul 20, 2021	4.6	9.3	0.0	4.6	9.3	0.0	9.3	0.0	4.6
Jul 27, 2021	9.3	4.6	0.0	4.6	4.6	0.0	0.0	0.0	0.0
Aug 3, 2021	4.6	4.6	4.6	0.0	4.6	4.6	0.0	0.0	4.6
Aug 10, 2021	4.6	4.6	9.3	4.6	0.0	4.6	0.0	0.0	4.6
Aug 17, 2021	4.6	9.3	9.3	0.0	0.0	4.6	4.6	4.6	4.6
Aug 24, 2021	4.6	0.0	0.0	4.6	4.6	0.0	4.6	4.6	4.6
Aug 31, 2021	0.0	9.3	4.6	4.6	0.0	0.0	0.0	4.6	9.3
Sep 7, 2021	4.6	9.3	4.6	4.6	4.6	0.0	0.0	0.0	0.0
Sep 14, 2021	4.6	4.6	0.0	0.0	0.0	4.6	9.3	0.0	0.0
Sep 21, 2021	0.0	4.6	0.0	0.0	0.0	9.3	4.6	4.6	4.6
Sep 28, 2021	0.0	9.3	0.0	0.0	4.6	4.6	0.0	9.3	4.6
Oct 5, 2021	4.6	0.0	0.0	4.6	4.6	0.0	4.6	0.0	4.6
Oct 12, 2021	9.3	4.6	0.0	4.6	9.3	4.6	0.0	0.0	9.3

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Oct 19, 2021	4.6	4.6	4.6	4.6	0.0	4.6	9.3	4.6	9.3
Oct 26, 2021	4.6	9.3	0.0	4.6	4.6	4.6	4.6	0.0	4.6
Nov 2, 2021	0.0	4.6	4.6	0.0	4.6	4.6	4.6	9.3	0.0
Nov 9, 2021	4.6	4.6	9.3	4.6	4.6	0.0	4.6	4.6	4.6
Nov 16, 2021	4.6	4.6	4.6	0.0	0.0	4.6	4.6	4.6	0.0
Nov 23, 2021	4.6	0.0	4.6	9.3	4.6	4.6	0.0	4.6	4.6
Nov 30, 2021	0.0	4.6	4.6	9.3	4.6	9.3	0.0	4.6	4.6
Dec 7, 2021	4.6	0.0	0.0	9.3	4.6	4.6	0.0	4.6	0.0
Dec 14, 2021	0.0	4.6	0.0	4.6	0.0	0.0	4.6	4.6	4.6
Dec 21, 2021	0.0	4.6	9.3	4.6	9.3	0.0	4.6	0.0	4.6
Dec 28, 2021	4.6	0.0	9.3	9.3	4.6	9.3	4.6	4.6	0.0
Jan 4, 2022	4.6	4.6	4.6	4.6	0.0	0.0	9.3	4.6	0.0
Jan 11, 2022	0.0	0.0	9.3	4.6	9.3	4.6	4.6	4.6	4.6
Jan 18, 2022	4.6	0.0	0.0	4.6	4.6	4.6	0.0	4.6	4.6
Jan 25, 2022	0.0	4.6	4.6	4.6	0.0	4.6	4.6	4.6	0.0
Feb 1, 2022	4.6	0.0	4.6	4.6	0.0	4.6	4.6	4.6	0.0
Feb 8, 2022	4.6	4.6	4.6	4.6	4.6	0.0	4.6	0.0	0.0
Feb 15, 2022	4.6	0.0	4.6	4.6	4.6	0.0	4.6	4.6	4.6
Feb 22, 2022	4.6	0.0	0.0	4.6	9.3	4.6	4.6	4.6	4.6
Mar 1, 2022	0.0	4.6	4.6	0.0	0.0	4.6	4.6	4.6	4.6
Mar 8, 2022	4.6	4.6	4.6	0.0	0.0	4.6	9.3	4.6	0.0
Mar 15, 2022	4.6	9.3	4.6	0.0	0.0	4.6	4.6	4.6	4.6
Mar 22, 2022	0.0	9.3	4.6	4.6	4.6	4.6	9.3	4.6	4.6
Mar 29, 2022	4.6	0.0	4.6	0.0	4.6	0.0	0.0	0.0	0.0
Apr 5, 2022	4.6	0.0	4.6	4.6	0.0	4.6	4.6	4.6	4.6
Apr 12, 2022	4.6	4.6	0.0	0.0	4.6	4.6	0.0	0.0	0.0
Apr 19, 2022	4.6	4.6	0.0	4.6	4.6	4.6	0.0	4.6	0.0
Apr 26, 2022	0.0	4.6	0.0	4.6	0.0	4.6	4.6	0.0	0.0
May 3, 2022	0.0	4.6	9.3	0.0	4.6	0.0	4.6	4.6	0.0
May 10, 2022	4.6	4.6	4.6	4.6	4.6	4.6	0.0	4.6	4.6
May 17, 2022	4.6	4.6	0.0	4.6	4.6	4.6	4.6	9.3	4.6

Weekly GAS VOLUMES - Samples (mL) @ STP

Date	2229A	2229B	2229C
May 7, 2019	92.5	1374.3	2031.4
May 14, 2019	282.3	444.2	1434.5
May 21, 2019	78.7	101.8	527.5
May 28, 2019	162.0	268.4	1050.4
Jun 4, 2019	171.2	435.0	1018.0
Jun 11, 2019	194.3	1267.9	1119.8
Jun 18, 2019	180.5	1314.2	337.8
Jun 25, 2019	162.0	1022.6	254.5
Jul 2, 2019	162.0	1022.6	620.1

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
Jul 9, 2019	175.8	953.2	967.1
Jul 16, 2019	217.5	518.3	1230.9
Jul 23, 2019	203.6	277.6	1254.0
Jul 30, 2019	203.6	1055.0	856.1
Aug 6, 2019	180.5	1295.6	314.7
Aug 13, 2019	277.6	948.6	1369.7
Aug 20, 2019	259.1	203.6	990.2
Aug 27, 2019	282.3	217.5	1068.9
Sep 3, 2019	259.1	259.1	555.3
Sep 10, 2019	273.0	1036.5	203.6
Sep 17, 2019	939.3	587.7	425.7
Sep 24, 2019	879.2	273.0	967.1
Oct 1, 2019	837.5	268.4	1073.5
Oct 8, 2019	1031.9	458.1	185.1
Oct 15, 2019	981.0	421.1	319.3
Oct 22, 2019	726.5	462.7	476.6
Oct 29, 2019	1022.6	416.5	485.9
Nov 5, 2019	671.0	462.7	435.0
Nov 12, 2019	240.6	481.2	536.8
Nov 19, 2019	226.7	513.6	472.0
Nov 26, 2019	217.5	467.4	495.1
Dec 3, 2019	698.7	809.8	546.0
Dec 10, 2019	323.9	300.8	333.2
Dec 17, 2019	171.2	208.2	236.0
Dec 24, 2019	157.3	194.3	249.9
Dec 31, 2019	152.7	194.3	277.6
Jan 7, 2020	143.4	199.0	273.0
Jan 14, 2020	138.8	189.7	277.6
Jan 21, 2020	148.1	189.7	138.8
Jan 28, 2020	185.1	185.1	120.3
Feb 4, 2020	171.2	199.0	92.5
Feb 11, 2020	162.0	194.3	115.7
Feb 18, 2020	171.2	194.3	115.7
Feb 25, 2020	171.2	111.1	115.7
Mar 3, 2020	171.2	124.9	92.5
Mar 10, 2020	171.2	101.8	134.2
Mar 17, 2020	148.1	124.9	134.2
Mar 24, 2020	152.7	120.3	129.6
Mar 31, 2020	185.1	134.2	111.1
Apr 7, 2020	175.8	120.3	115.7
Apr 14, 2020	152.7	129.6	124.9
Apr 21, 2020	152.7	111.1	120.3
Apr 28, 2020	138.8	111.1	97.2

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
May 5, 2020	97.2	120.3	97.2
May 12, 2020	97.2	138.8	97.2
May 19, 2020	111.1	106.4	134.2
May 26, 2020	129.6	111.1	97.2
Jun 2, 2020	134.2	124.9	101.8
Jun 9, 2020	92.5	134.2	138.8
Jun 16, 2020	92.5	115.7	101.8
Jun 23, 2020	106.4	124.9	124.9
Jun 30, 2020	1540.9	134.2	138.8
Jul 7, 2020	485.9	134.2	115.7
Jul 14, 2020	522.9	101.8	101.8
Jul 21, 2020	587.7	129.6	124.9
Jul 28, 2020	236.0	97.2	124.9
Aug 4, 2020	485.9	124.9	129.6
Aug 11, 2020	393.3	120.3	115.7
Aug 18, 2020	319.3	120.3	166.6
Aug 25, 2020	138.8	129.6	129.6
Sep 1, 2020	467.4	115.7	115.7
Sep 8, 2020	435.0	120.3	124.9
Sep 15, 2020	92.5	111.1	124.9
Sep 22, 2020	92.5	124.9	138.8
Sep 29, 2020	115.7	78.7	129.6
Oct 6, 2020	162.0	69.4	129.6
Oct 13, 2020	328.5	134.2	124.9
Oct 20, 2020	175.8	101.8	115.7
Oct 27, 2020	286.9	97.2	134.2
Nov 3, 2020	222.1	134.2	111.1
Nov 10, 2020	263.8	134.2	129.6
Nov 17, 2020	305.4	111.1	129.6
Nov 24, 2020	226.7	101.8	111.1
Dec 1, 2020	222.1	129.6	129.6
Dec 8, 2020	435.0	115.7	134.2
Dec 15, 2020	384.1	111.1	138.8
Dec 22, 2020	698.7	129.6	129.6
Dec 29, 2020	64.8	101.8	134.2
Jan 5, 2021	55.5	134.2	115.7
Jan 12, 2021	4.6	106.4	115.7
Jan 19, 2021	0.0	101.8	138.8
Jan 26, 2021	78.7	120.3	138.8
Feb 2, 2021	13.9	97.2	129.6
Feb 9, 2021	0.0	97.2	120.3
Feb 16, 2021	1744.5	134.2	120.3
Feb 23, 2021	328.5	111.1	111.1

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
Mar 2, 2021	675.6	129.6	120.3
Mar 9, 2021	0.0	115.7	120.3
Mar 16, 2021	828.3	120.3	138.8
Mar 23, 2021	273.0	111.1	111.1
Mar 30, 2021	365.6	111.1	134.2
Apr 6, 2021	-37.0	97.2	115.7
Apr 13, 2021	13.9	97.2	111.1
Apr 20, 2021	-23.1	97.2	124.9
Apr 27, 2021	50.9	138.8	111.1
May 4, 2021	555.3	111.1	124.9
May 11, 2021	846.8	124.9	129.6
May 18, 2021	78.7	129.6	138.8
May 25, 2021	236.0	370.2	115.7
Jun 1, 2021	185.1	370.2	120.3
Jun 8, 2021	134.2	277.6	120.3
Jun 15, 2021	124.9	236.0	120.3
Jun 22, 2021	148.1	356.3	111.1
Jun 29, 2021	37.0	208.2	115.7
Jul 6, 2021	37.0	171.2	37.0
Jul 13, 2021	46.3	263.8	41.6
Jul 20, 2021	41.6	388.7	41.6
Jul 27, 2021	46.3	120.3	37.0
Aug 3, 2021	37.0	87.9	41.6
Aug 10, 2021	41.6	120.3	41.6
Aug 17, 2021	32.4	124.9	41.6
Aug 24, 2021	46.3	115.7	37.0
Aug 31, 2021	37.0	120.3	46.3
Sep 7, 2021	37.0	124.9	41.6
Sep 14, 2021	41.6	120.3	46.3
Sep 21, 2021	41.6	37.0	32.4
Sep 28, 2021	46.3	41.6	41.6
Oct 5, 2021	23.1	46.3	46.3
Oct 12, 2021	23.1	37.0	37.0
Oct 19, 2021	23.1	37.0	41.6
Oct 26, 2021	18.5	41.6	32.4
Nov 2, 2021	32.4	41.6	37.0
Nov 9, 2021	9.3	41.6	41.6
Nov 16, 2021	4.6	46.3	32.4
Nov 23, 2021	0.0	41.6	41.6
Nov 30, 2021	0.0	46.3	92.5
Dec 7, 2021	4.6	37.0	115.7
Dec 14, 2021	-4.6	46.3	46.3
Dec 21, 2021	0.0	46.3	32.4

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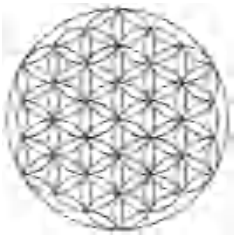
Date	2229A	2229B	2229C
Dec 28, 2021	-4.6	37.0	23.1
Jan 4, 2022	4.6	69.4	0.0
Jan 11, 2022	27.8	46.3	0.0
Jan 18, 2022	4.6	18.5	0.0
Jan 25, 2022	18.5	18.5	4.6
Feb 1, 2022	4.6	-4.6	0.0
Feb 8, 2022	13.9	4.6	0.0
Feb 15, 2022	4.6	0.0	9.3
Feb 22, 2022	0.0	0.0	9.3
Mar 1, 2022	4.6	4.6	0.0
Mar 8, 2022	0.0	0.0	0.0
Mar 15, 2022	4.6	0.0	4.6
Mar 22, 2022	0.0	0.0	4.6
Mar 29, 2022	0.0	4.6	4.6
Apr 5, 2022	0.0	4.6	0.0
Apr 12, 2022	0.0	9.3	9.3
Apr 19, 2022	4.6	0.0	9.3
Apr 26, 2022	0.0	9.3	0.0
May 3, 2022	4.6	0.0	0.0
May 10, 2022	4.6	4.6	0.0
May 17, 2022	4.6	4.6	0.0

Weekly GAS QUALITY - CONTROLS (mL)
METHANE VOLUME

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
May 7, 2019	26.7	20.2	16.2	21.5	10.0	4.9	308.3	260.8	250.7
May 14, 2019	72.3	62.2	93.7	106.2	92.8	280.9	1244.8	1159.8	1008.2
May 21, 2019	26.6	23.2	28.7	42.3	28.7	27.9	534.8	505.5	449.4
May 28, 2019	77.7	91.2	92.0	19.2	84.9	96.5	543.3	643.2	489.8
Jun 4, 2019	79.6	81.9	84.3	155.2	83.1	8.3	233.1	439.2	377.0
Jun 11, 2019	62.0	88.4	89.7	19.3	112.5	25.1	67.9	115.5	386.2
Jun 18, 2019	46.5	112.1	32.2	-5.4	31.5	16.2	137.7	127.4	252.6
Jun 25, 2019	7.5	11.1	21.0	8.6	7.9	11.3	145.8	101.3	15.4
Jul 2, 2019	12.1	11.0	5.3	13.5	11.0	8.5	23.3	98.1	10.1
Jul 9, 2019	11.6	8.0	8.1	0.0	5.2	5.4	43.0	108.7	10.5
Jul 16, 2019	4.7	13.2	5.3	10.7	10.3	13.6	58.7	90.0	15.2
Jul 23, 2019	7.3	8.1	10.8	17.2	13.6	11.5	18.4	26.1	7.8
Jul 30, 2019	7.0	8.0	8.4	5.7	15.7	22.0	145.3	-5.7	10.0
Aug 6, 2019	6.9	5.4	10.8	11.1	16.5	5.6	46.3	5.7	15.2
Aug 13, 2019	13.5	12.8	11.2	2.9	15.7	11.0	113.2	0.0	22.6
Aug 20, 2019	7.1	7.9	8.3	2.8	7.6	14.3	-8.2	0.0	5.0
Aug 27, 2019	7.0	5.4	8.2	10.8	10.1	5.7	102.7	8.2	12.5
Sep 3, 2019	5.0	10.6	8.1	8.7	2.6	8.3	-121.4	-2.9	7.6
Sep 10, 2019	12.1	7.9	5.3	14.3	8.0	5.5	8.0	5.6	25.4



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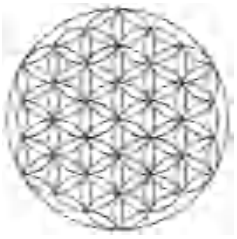
Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Sep 17, 2019	9.4	10.9	8.0	8.6	10.7	5.6	13.3	0.0	17.6
Sep 24, 2019	2.3	7.8	13.0	11.3	7.7	11.2	10.6	-2.9	38.9
Oct 1, 2019	9.3	8.3	10.5	14.2	12.9	11.3	88.4	5.6	121.5
Oct 8, 2019	7.1	10.3	10.2	5.6	10.6	8.0	-5.1	-2.9	10.3
Oct 15, 2019	14.9	7.7	8.2	8.5	5.3	5.6	54.6	2.8	62.2
Oct 22, 2019	11.9	10.9	0.0	13.9	7.6	11.4	13.2	-2.8	23.3
Oct 29, 2019	7.2	10.5	11.0	8.5	15.6	8.2	42.7	0.0	58.1
Nov 5, 2019	4.7	15.8	7.8	11.3	2.5	11.5	2.7	0.0	36.2
Nov 12, 2019	9.5	8.3	10.2	11.2	2.6	8.3	18.8	2.7	17.8
Nov 19, 2019	7.2	5.5	16.6	5.6	5.3	5.6	19.0	2.8	-7.5
Nov 26, 2019	2.3	5.5	10.3	14.2	12.6	5.5	0.0	0.0	0.0
Dec 3, 2019	11.7	15.8	10.6	21.8	7.6	13.8	0.0	0.0	2.5
Dec 10, 2019	7.1	10.4	10.6	2.8	7.8	2.8	10.7	5.7	7.6
Dec 17, 2019	4.8	2.8	2.7	0.0	0.0	2.7	2.5	5.6	2.6
Dec 24, 2019	2.3	2.7	2.6	2.9	0.0	2.8	5.2	0.0	2.6
Dec 31, 2019	0.0	2.5	2.8	0.0	2.6	2.9	0.0	2.9	0.0
Jan 7, 2020	2.5	5.4	2.7	5.8	0.0	0.0	0.0	2.8	0.0
Jan 14, 2020	0.0	0.0	5.5	2.8	2.6	0.0	2.6	0.0	0.0
Jan 21, 2020	0.0	5.5	0.0	0.0	2.5	2.8	2.7	0.0	5.0
Jan 28, 2020	2.3	2.7	2.7	5.9	2.7	2.8	2.6	2.9	2.6
Feb 4, 2020	0.0	2.8	5.4	0.0	2.6	0.0	0.0	2.8	2.6
Feb 11, 2020	2.3	0.0	2.7	2.8	2.7	2.8	0.0	5.5	0.0
Feb 18, 2020	0.0	2.6	2.6	0.0	2.6	0.0	0.0	2.8	2.6
Feb 25, 2020	0.0	2.7	2.7	0.0	2.6	5.6	2.6	0.0	2.4
Mar 3, 2020	2.4	0.0	2.7	2.8	0.0	0.0	0.0	5.9	2.6
Mar 10, 2020	0.0	0.0	2.7	0.0	2.6	2.9	0.0	2.9	2.5
Mar 17, 2020	2.3	0.0	2.7	2.8	0.0	2.8	0.0	2.9	2.6
Mar 24, 2020	2.3	2.6	0.0	2.9	2.7	0.0	2.7	2.9	0.0
Mar 31, 2020	0.0	5.3	5.5	2.9	0.0	2.8	2.7	2.8	2.5
Apr 7, 2020	0.0	2.7	2.8	5.6	0.0	0.0	5.2	0.0	2.5
Apr 14, 2020	2.4	0.0	0.0	2.9	2.6	5.7	2.6	0.0	2.5
Apr 21, 2020	0.0	2.7	0.0	2.9	5.2	0.0	2.7	2.8	2.4
Apr 28, 2020	2.3	2.7	0.0	2.8	2.7	0.0	2.6	5.5	2.5
May 5, 2020	2.4	2.7	2.8	2.8	2.7	0.0	2.7	2.8	2.5
May 12, 2020	2.4	2.7	2.6	2.7	5.2	2.8	0.0	2.8	0.0
May 19, 2020	4.8	0.0	2.7	2.9	2.5	2.8	2.6	0.0	0.0
May 26, 2020	2.5	2.7	0.0	5.7	2.6	2.8	0.0	2.9	2.5
Jun 2, 2020	2.3	0.0	0.0	2.8	0.0	2.8	2.7	5.6	2.6
Jun 9, 2020	2.4	2.6	2.7	0.0	0.0	2.8	2.7	0.0	0.0
Jun 16, 2020	4.8	2.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Jun 23, 2020	2.4	2.6	2.6	0.0	2.7	2.8	0.0	5.8	2.4
Jun 30, 2020	2.4	0.0	0.0	2.9	2.6	2.8	2.6	5.8	0.0
Jul 7, 2020	0.0	0.0	0.0	5.7	0.0	2.8	0.0	2.8	2.5



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Report

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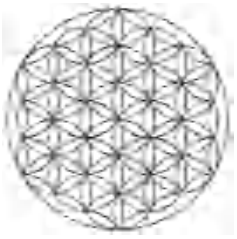
ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Jul 14, 2020	0.0	0.0	5.5	2.8	0.0	2.8	0.0	2.9	2.5
Jul 21, 2020	2.4	2.6	0.0	2.8	2.6	2.9	2.7	5.6	5.2
Jul 28, 2020	2.4	0.0	2.7	0.0	0.0	2.8	2.6	0.0	2.5
Aug 4, 2020	4.7	0.0	0.0	5.6	0.0	2.8	2.6	5.7	5.2
Aug 11, 2020	2.3	0.0	0.0	0.0	2.6	2.8	0.0	0.0	2.6
Aug 18, 2020	2.3	2.7	2.8	0.0	5.4	0.0	2.5	2.8	5.1
Aug 25, 2020	0.0	0.0	2.7	2.7	2.7	2.8	2.6	2.8	2.5
Sep 1, 2020	2.3	2.6	0.0	5.7	2.5	0.0	2.6	5.6	5.1
Sep 8, 2020	2.5	0.0	2.6	0.0	2.7	2.8	2.6	0.0	2.6
Sep 15, 2020	2.5	2.7	2.7	0.0	2.6	0.0	2.7	0.0	2.6
Sep 22, 2020	2.4	0.0	2.6	2.9	0.0	2.8	2.6	5.6	2.5
Sep 29, 2020	0.0	0.0	5.4	0.0	5.2	0.0	2.5	2.8	0.0
Oct 6, 2020	2.3	2.6	2.7	2.7	2.5	5.7	2.7	2.9	0.0
Oct 13, 2020	2.3	0.0	2.7	2.7	2.6	5.6	2.7	2.9	2.6
Oct 20, 2020	2.4	2.7	2.6	0.0	2.7	2.8	0.0	2.8	2.4
Oct 27, 2020	0.0	0.0	0.0	5.5	0.0	0.0	2.6	2.8	0.0
Nov 3, 2020	0.0	2.6	2.6	0.0	2.5	0.0	5.3	0.0	2.4
Nov 10, 2020	0.0	2.6	2.6	5.7	2.5	2.9	2.7	0.0	2.4
Nov 17, 2020	0.0	2.6	0.0	2.9	2.5	0.0	0.0	2.8	0.0
Nov 24, 2020	0.0	0.0	2.6	2.9	2.5	5.7	2.7	2.8	2.4
Dec 1, 2020	4.9	5.2	0.0	2.9	0.0	0.0	0.0	2.8	4.8
Dec 8, 2020	4.9	5.2	5.3	2.9	2.5	2.9	2.7	2.8	0.0
Dec 15, 2020	2.4	0.0	0.0	2.9	2.5	0.0	5.3	0.0	4.8
Dec 22, 2020	2.4	0.0	0.0	0.0	0.0	2.9	0.0	2.8	2.4
Dec 29, 2020	2.4	0.0	2.6	0.0	2.5	0.0	0.0	5.5	2.4
Jan 5, 2021	2.4	5.2	2.6	0.0	2.5	2.9	2.7	0.0	2.4
Jan 12, 2021	2.4	2.6	5.3	2.9	2.5	2.9	0.0	2.8	4.8
Jan 19, 2021	0.0	2.6	0.0	0.0	5.1	2.9	2.7	5.5	0.0
Jan 26, 2021	0.0	2.6	2.6	2.9	0.0	0.0	2.7	2.8	2.4
Feb 2, 2021	2.4	5.2	2.6	2.9	2.5	2.9	2.7	2.8	2.4
Feb 9, 2021	4.9	2.6	2.6	5.7	2.5	2.9	0.0	2.8	0.0
Feb 16, 2021	2.4	2.6	2.6	0.0	2.5	2.9	0.0	2.8	2.4
Feb 23, 2021	2.4	0.0	0.0	2.9	2.5	2.9	2.7	0.0	2.4
Mar 2, 2021	0.0	0.0	2.6	2.9	0.0	0.0	0.0	0.0	0.0
Mar 9, 2021	2.4	2.6	0.0	2.9	2.5	2.9	2.7	5.5	0.0
Mar 16, 2021	2.4	0.0	0.0	2.9	5.1	2.9	2.7	0.0	2.4
Mar 23, 2021	0.0	5.2	2.6	5.7	5.1	0.0	2.7	2.8	0.0
Mar 30, 2021	2.4	2.6	5.3	2.9	2.5	2.9	2.7	0.0	0.0
Apr 6, 2021	2.4	5.2	2.6	2.9	0.0	2.9	0.0	5.5	2.4
Apr 13, 2021	2.4	2.6	0.0	0.0	0.0	0.0	5.3	2.8	2.4
Apr 20, 2021	0.0	2.6	2.6	2.9	2.5	2.9	2.7	5.5	4.8
Apr 27, 2021	4.9	0.0	5.3	2.9	0.0	2.9	2.7	2.8	2.4
May 4, 2021	0.0	0.0	2.6	0.0	2.5	2.9	2.7	2.8	0.0



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Report

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
May 11, 2021	2.4	2.6	2.6	2.9	2.5	2.9	2.7	0.0	2.4
May 18, 2021	2.4	0.0	2.6	2.9	5.1	0.0	2.7	2.8	2.4
May 25, 2021	2.4	2.6	2.6	2.9	0.0	0.0	2.7	2.8	0.0
Jun 1, 2021	0.0	2.6	2.6	0.0	2.5	2.9	2.7	2.8	0.0
Jun 8, 2021	2.4	2.6	0.0	2.9	5.1	0.0	2.7	0.0	2.4
Jun 15, 2021	0.0	2.6	0.0	2.9	0.0	0.0	2.7	0.0	0.0
Jun 22, 2021	0.0	0.0	0.0	0.0	2.5	2.9	0.0	0.0	0.0
Jun 29, 2021	0.0	5.2	2.6	2.9	2.5	0.0	2.7	0.0	2.4
Jul 6, 2021	0.0	2.6	0.0	2.9	2.5	0.0	0.0	0.0	2.4
Jul 13, 2021	2.4	2.6	2.6	2.9	0.0	2.9	2.7	0.0	2.4
Jul 20, 2021	2.4	5.2	0.0	2.9	5.1	0.0	5.3	0.0	2.4
Jul 27, 2021	4.9	2.6	0.0	2.9	2.5	0.0	0.0	0.0	0.0
Aug 3, 2021	2.4	2.6	2.6	0.0	2.5	2.9	0.0	0.0	2.4
Aug 10, 2021	2.4	2.6	5.3	2.9	0.0	2.9	0.0	0.0	2.4
Aug 17, 2021	2.4	5.2	5.3	0.0	0.0	2.9	2.7	2.8	2.4
Aug 24, 2021	2.4	0.0	0.0	2.9	2.5	0.0	2.7	2.8	2.4
Aug 31, 2021	0.0	5.2	2.6	2.9	0.0	0.0	0.0	2.8	4.8
Sep 7, 2021	2.4	5.2	2.6	2.9	2.5	0.0	0.0	0.0	0.0
Sep 14, 2021	2.4	2.6	0.0	0.0	0.0	2.9	5.3	0.0	0.0
Sep 21, 2021	0.0	2.6	0.0	0.0	0.0	5.7	2.7	2.8	2.4
Sep 28, 2021	0.0	5.2	0.0	0.0	2.5	2.9	0.0	5.5	2.4
Oct 5, 2021	2.4	0.0	0.0	2.9	2.5	0.0	2.7	0.0	2.4
Oct 12, 2021	4.9	2.6	0.0	2.9	5.1	2.9	0.0	0.0	4.8
Oct 19, 2021	2.4	2.6	2.6	2.9	0.0	2.9	5.3	2.8	4.8
Oct 26, 2021	2.4	5.2	0.0	2.9	2.5	2.9	2.7	0.0	2.4
Nov 2, 2021	0.0	2.6	2.6	0.0	2.5	2.9	2.7	5.5	0.0
Nov 9, 2021	2.4	2.6	5.3	2.9	2.5	0.0	2.7	2.8	2.4
Nov 16, 2021	2.4	2.6	2.6	0.0	0.0	2.9	2.7	2.8	0.0
Nov 23, 2021	2.4	0.0	2.6	5.7	2.5	2.9	0.0	2.8	2.4
Nov 30, 2021	0.0	2.6	2.6	5.7	2.5	5.7	0.0	2.8	2.4
Dec 7, 2021	2.4	0.0	0.0	5.7	2.5	2.9	0.0	2.8	0.0
Dec 14, 2021	0.0	2.6	0.0	2.9	0.0	0.0	2.7	2.8	2.4
Dec 21, 2021	0.0	2.6	5.3	2.9	5.1	0.0	2.7	0.0	2.4
Dec 28, 2021	2.4	0.0	5.3	5.7	2.5	5.7	2.7	2.8	0.0
Jan 4, 2022	2.4	2.6	2.6	2.9	0.0	0.0	5.3	2.8	0.0
Jan 11, 2022	0.0	0.0	5.3	2.9	5.1	2.9	2.7	2.8	2.4
Jan 18, 2022	2.4	0.0	0.0	2.9	2.5	2.9	0.0	2.8	2.4
Jan 25, 2022	0.0	2.6	2.6	2.9	0.0	2.9	2.7	2.8	0.0
Feb 1, 2022	2.4	0.0	2.6	2.9	0.0	2.9	2.7	2.8	0.0
Feb 8, 2022	2.4	2.6	2.6	2.9	2.5	0.0	2.7	0.0	0.0
Feb 15, 2022	2.4	0.0	2.6	2.9	2.5	0.0	2.7	2.8	2.4
Feb 22, 2022	2.4	0.0	0.0	2.9	5.1	2.9	2.7	2.8	2.4
Mar 1, 2022	0.0	2.6	2.6	0.0	0.0	2.9	2.7	2.8	2.4

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Mar 8, 2022	2.4	2.6	2.6	0.0	0.0	2.9	5.3	2.8	0.0
Mar 15, 2022	2.4	5.2	2.6	0.0	0.0	2.9	2.7	2.8	2.4
Mar 22, 2022	0.0	5.2	2.6	2.9	2.5	2.9	5.3	2.8	2.4
Mar 29, 2022	2.4	0.0	2.6	0.0	2.5	0.0	0.0	0.0	0.0
Apr 5, 2022	2.4	0.0	2.6	2.9	0.0	2.9	2.7	2.8	2.4
Apr 12, 2022	2.4	2.6	0.0	0.0	2.5	2.9	0.0	0.0	0.0
Apr 19, 2022	2.4	2.6	0.0	2.9	2.5	2.9	0.0	2.8	0.0
Apr 26, 2022	0.0	2.6	0.0	2.9	0.0	2.9	2.7	0.0	0.0
May 3, 2022	0.0	2.6	5.3	0.0	2.5	0.0	2.7	2.8	0.0
May 10, 2022	2.4	2.6	2.6	2.9	2.5	2.9	0.0	2.8	2.4
May 17, 2022	2.4	2.6	0.0	2.9	2.5	2.9	2.7	5.5	2.4

Weekly GAS QUALITY - SAMPLES (mL)
METHANE VOLUME

Date	2229A	2229B	2229C
May 7, 2019	5.9	63.2	219.4
May 14, 2019	90.3	160.4	562.3
May 21, 2019	29.3	33.9	237.4
May 28, 2019	48.1	87.2	347.7
Jun 4, 2019	90.1	240.1	593.5
Jun 11, 2019	105.1	685.9	669.6
Jun 18, 2019	93.8	705.7	194.9
Jun 25, 2019	83.2	569.6	150.7
Jul 2, 2019	85.8	576.8	353.4
Jul 9, 2019	93.5	509.0	574.5
Jul 16, 2019	111.4	295.9	753.3
Jul 23, 2019	104.7	150.2	738.6
Jul 30, 2019	107.1	559.2	505.1
Aug 6, 2019	96.9	695.8	183.8
Aug 13, 2019	150.8	508.4	817.7
Aug 20, 2019	130.9	108.1	578.3
Aug 27, 2019	152.1	115.9	627.4
Sep 3, 2019	132.2	139.2	326.5
Sep 10, 2019	143.6	546.2	119.3
Sep 17, 2019	496.9	323.8	252.0
Sep 24, 2019	459.8	149.9	559.0
Oct 1, 2019	441.4	145.7	635.5
Oct 8, 2019	568.6	248.3	107.0
Oct 15, 2019	544.4	227.8	189.0
Oct 22, 2019	392.3	242.9	269.8
Oct 29, 2019	532.8	225.7	296.9
Nov 5, 2019	355.6	259.1	251.0
Nov 12, 2019	124.9	256.0	315.1
Nov 19, 2019	117.7	287.1	282.2

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Date	2229A	2229B	2229C
Nov 26, 2019	117.9	258.4	287.7
Dec 3, 2019	359.1	439.7	320.0
Dec 10, 2019	175.2	163.9	190.6
Dec 17, 2019	90.6	116.0	132.6
Dec 24, 2019	82.0	106.1	152.4
Dec 31, 2019	84.0	102.4	163.5
Jan 7, 2020	75.3	112.2	154.5
Jan 14, 2020	72.3	105.1	169.6
Jan 21, 2020	77.7	106.4	79.8
Jan 28, 2020	97.9	99.9	69.2
Feb 4, 2020	93.7	106.5	53.5
Feb 11, 2020	82.1	107.7	68.0
Feb 18, 2020	87.7	103.6	67.7
Feb 25, 2020	93.0	60.1	70.5
Mar 3, 2020	87.8	68.0	51.5
Mar 10, 2020	88.3	55.8	75.7
Mar 17, 2020	80.1	68.0	82.1
Mar 24, 2020	81.4	64.5	75.1
Mar 31, 2020	99.6	73.7	65.1
Apr 7, 2020	91.8	64.1	67.3
Apr 14, 2020	80.5	70.6	73.6
Apr 21, 2020	79.7	62.4	70.9
Apr 28, 2020	73.0	62.9	58.1
May 5, 2020	50.7	67.7	56.7
May 12, 2020	53.3	73.9	56.7
May 19, 2020	59.9	57.6	79.2
May 26, 2020	65.8	62.9	55.4
Jun 2, 2020	68.7	67.8	57.4
Jun 9, 2020	47.7	71.7	80.5
Jun 16, 2020	49.9	64.6	59.0
Jun 23, 2020	54.2	68.3	74.6
Jun 30, 2020	847.5	73.0	81.9
Jul 7, 2020	261.4	73.5	70.7
Jul 14, 2020	281.8	54.3	61.5
Jul 21, 2020	323.2	68.4	70.6
Jul 28, 2020	125.1	53.6	72.6
Aug 4, 2020	252.2	66.8	76.3
Aug 11, 2020	202.2	63.8	68.4
Aug 18, 2020	174.3	66.7	100.1
Aug 25, 2020	73.7	68.3	76.4
Sep 1, 2020	252.8	60.6	64.2
Sep 8, 2020	226.6	65.6	73.1
Sep 15, 2020	49.0	58.9	69.8

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Date	2229A	2229B	2229C
Sep 22, 2020	48.1	68.6	79.8
Sep 29, 2020	60.3	42.3	76.1
Oct 6, 2020	84.2	37.8	74.0
Oct 13, 2020	165.6	74.9	72.5
Oct 20, 2020	95.0	57.7	68.5
Oct 27, 2020	147.5	53.8	80.9
Nov 3, 2020	113.3	72.2	63.7
Nov 10, 2020	134.5	72.2	74.4
Nov 17, 2020	155.8	59.7	74.4
Nov 24, 2020	115.6	54.8	63.7
Dec 1, 2020	113.3	69.7	74.4
Dec 8, 2020	221.8	62.2	77.0
Dec 15, 2020	195.9	59.7	79.7
Dec 22, 2020	356.3	69.7	74.4
Dec 29, 2020	33.0	54.8	77.0
Jan 5, 2021	28.3	72.2	66.4
Jan 12, 2021	2.4	57.3	66.4
Jan 19, 2021	0.0	54.8	79.7
Jan 26, 2021	40.1	64.7	79.7
Feb 2, 2021	7.1	52.3	74.4
Feb 9, 2021	0.0	52.3	69.1
Feb 16, 2021	889.7	72.2	69.1
Feb 23, 2021	167.6	59.7	63.7
Mar 2, 2021	344.5	69.7	69.1
Mar 9, 2021	0.0	62.2	69.1
Mar 16, 2021	422.4	64.7	79.7
Mar 23, 2021	139.2	59.7	63.7
Mar 30, 2021	186.4	59.7	77.0
Apr 6, 2021	-18.9	52.3	66.4
Apr 13, 2021	7.1	52.3	63.7
Apr 20, 2021	-11.8	52.3	71.7
Apr 27, 2021	26.0	74.7	63.7
May 4, 2021	283.2	59.7	71.7
May 11, 2021	431.9	67.2	74.4
May 18, 2021	40.1	69.7	79.7
May 25, 2021	120.4	199.2	66.4
Jun 1, 2021	94.4	199.2	69.1
Jun 8, 2021	68.4	149.4	69.1
Jun 15, 2021	63.7	127.0	69.1
Jun 22, 2021	75.5	191.7	63.7
Jun 29, 2021	18.9	112.0	66.4
Jul 6, 2021	18.9	92.1	21.2
Jul 13, 2021	23.6	141.9	23.9

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
Jul 20, 2021	21.2	209.1	23.9
Jul 27, 2021	23.6	64.7	21.2
Aug 3, 2021	18.9	47.3	23.9
Aug 10, 2021	21.2	64.7	23.9
Aug 17, 2021	16.5	67.2	23.9
Aug 24, 2021	23.6	62.2	21.2
Aug 31, 2021	18.9	64.7	26.6
Sep 7, 2021	18.9	67.2	23.9
Sep 14, 2021	21.2	64.7	26.6
Sep 21, 2021	21.2	19.9	18.6
Sep 28, 2021	23.6	22.4	23.9
Oct 5, 2021	11.8	24.9	26.6
Oct 12, 2021	11.8	19.9	21.2
Oct 19, 2021	11.8	19.9	23.9
Oct 26, 2021	9.4	22.4	18.6
Nov 2, 2021	16.5	22.4	21.2
Nov 9, 2021	4.7	22.4	23.9
Nov 16, 2021	2.4	24.9	18.6
Nov 23, 2021	0.0	22.4	23.9
Nov 30, 2021	0.0	24.9	53.1
Dec 7, 2021	2.4	19.9	66.4
Dec 14, 2021	-2.4	24.9	26.6
Dec 21, 2021	0.0	24.9	18.6
Dec 28, 2021	-2.4	19.9	13.3
Jan 4, 2022	2.4	37.3	0.0
Jan 11, 2022	14.2	24.9	0.0
Jan 18, 2022	2.4	10.0	0.0
Jan 25, 2022	9.4	10.0	2.7
Feb 1, 2022	2.4	-2.5	0.0
Feb 8, 2022	7.1	2.5	0.0
Feb 15, 2022	2.4	0.0	5.3
Feb 22, 2022	0.0	0.0	5.3
Mar 1, 2022	2.4	2.5	0.0
Mar 8, 2022	0.0	0.0	0.0
Mar 15, 2022	2.4	0.0	2.7
Mar 22, 2022	0.0	0.0	2.7
Mar 29, 2022	0.0	2.5	2.7
Apr 5, 2022	0.0	2.5	0.0
Apr 12, 2022	0.0	5.0	5.3
Apr 19, 2022	2.4	0.0	5.3
Apr 26, 2022	0.0	5.0	0.0
May 3, 2022	2.4	0.0	0.0
May 10, 2022	2.4	2.5	0.0

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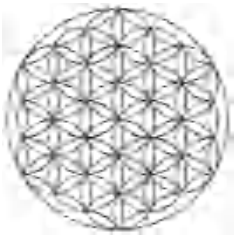
ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
May 17, 2022	2.4	2.5	0.0

Weekly GAS QUALITY (mL)
CARBON DIOXIDE VOLUME

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
May 7, 2019	201.4	135.2	131.6	241.2	126.6	53.1	2036.0	1874.5	1900.4
May 14, 2019	117.1	130.1	126.2	125.7	106.2	315.7	1513.2	1300.3	1240.1
May 21, 2019	35.5	34.3	31.2	51.1	33.2	34.1	441.0	395.9	337.1
May 28, 2019	49.8	52.0	52.0	10.4	53.8	52.3	327.3	369.2	300.0
Jun 4, 2019	52.7	42.6	52.9	85.5	53.0	4.8	143.3	234.7	241.2
Jun 11, 2019	37.5	50.7	56.5	10.9	71.1	13.6	42.2	60.0	226.6
Jun 18, 2019	31.2	59.0	20.2	-3.0	18.9	8.8	81.2	64.1	168.2
Jun 25, 2019	4.4	5.8	12.1	4.7	4.9	6.0	96.2	52.3	9.3
Jul 2, 2019	7.2	6.2	3.4	7.6	6.9	4.4	15.2	53.8	5.8
Jul 9, 2019	7.3	4.4	4.7	0.0	3.2	3.1	25.3	55.8	6.2
Jul 16, 2019	3.1	7.4	3.0	5.9	6.9	7.8	36.8	47.7	9.0
Jul 23, 2019	4.5	4.8	5.9	8.9	7.8	5.7	11.5	13.7	4.7
Jul 30, 2019	4.5	4.3	4.6	3.2	10.4	12.1	83.5	-3.1	6.0
Aug 6, 2019	4.9	2.8	6.5	5.8	10.2	3.0	27.8	2.8	8.5
Aug 13, 2019	9.4	7.7	6.2	1.5	10.1	6.5	70.6	0.0	14.8
Aug 20, 2019	4.5	4.6	5.2	1.6	5.0	7.2	-5.0	0.0	3.0
Aug 27, 2019	4.4	3.0	4.6	6.0	6.6	2.9	64.8	4.6	8.2
Sep 3, 2019	2.9	6.1	4.7	4.4	1.6	4.3	-74.5	-1.5	4.4
Sep 10, 2019	8.1	4.8	3.2	7.7	4.9	3.1	5.1	2.9	15.2
Sep 17, 2019	6.2	6.1	4.6	4.7	6.3	3.1	8.2	0.0	11.0
Sep 24, 2019	1.4	4.5	7.9	6.4	4.8	5.9	6.1	-1.5	23.5
Oct 1, 2019	6.2	4.4	6.2	8.0	8.3	6.0	52.9	3.0	72.4
Oct 8, 2019	4.6	5.6	6.8	2.9	6.8	4.5	-3.3	-1.4	6.3
Oct 15, 2019	9.1	4.8	4.8	4.8	3.3	3.0	33.1	1.5	36.1
Oct 22, 2019	7.1	5.7	0.0	7.7	4.9	6.1	8.1	-1.5	13.2
Oct 29, 2019	4.8	5.9	6.0	4.8	9.7	4.4	25.5	0.0	32.9
Nov 5, 2019	3.1	8.6	4.6	6.5	1.7	5.6	1.6	0.0	21.3
Nov 12, 2019	6.4	4.9	6.5	6.2	1.7	4.5	11.4	1.4	10.2
Nov 19, 2019	4.5	3.2	9.4	3.0	3.2	2.8	10.8	1.4	-4.7
Nov 26, 2019	1.6	3.0	6.2	7.2	8.4	3.0	0.0	0.0	0.0
Dec 3, 2019	7.2	9.3	6.8	11.8	5.2	7.3	0.0	0.0	1.5
Dec 10, 2019	4.9	6.0	6.5	1.6	5.2	1.6	6.7	3.2	4.6
Dec 17, 2019	3.0	1.4	1.7	0.0	0.0	1.6	1.6	3.0	1.5
Dec 24, 2019	1.5	1.5	1.7	1.5	0.0	1.6	3.2	0.0	1.6
Dec 31, 2019	0.0	1.6	1.7	0.0	1.7	1.4	0.0	1.4	0.0
Jan 7, 2020	1.6	3.0	1.5	2.9	0.0	0.0	0.0	1.5	0.0
Jan 14, 2020	0.0	0.0	3.1	1.5	1.7	0.0	1.6	0.0	0.0
Jan 21, 2020	0.0	3.0	0.0	0.0	1.7	1.6	1.7	0.0	2.9
Jan 28, 2020	1.5	1.5	1.6	3.1	1.8	1.5	1.5	1.5	1.5



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Report

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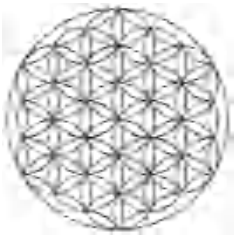
ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Feb 4, 2020	0.0	1.5	3.3	0.0	1.6	0.0	0.0	1.5	1.6
Feb 11, 2020	1.5	0.0	1.5	1.5	1.6	1.5	0.0	3.0	0.0
Feb 18, 2020	0.0	1.5	1.7	0.0	1.6	0.0	0.0	1.4	1.5
Feb 25, 2020	0.0	1.4	1.6	0.0	1.6	3.1	1.7	0.0	1.5
Mar 3, 2020	1.6	0.0	1.6	1.6	0.0	0.0	0.0	3.1	1.5
Mar 10, 2020	0.0	0.0	1.7	0.0	1.7	1.5	0.0	1.5	1.6
Mar 17, 2020	1.6	0.0	1.6	1.5	0.0	1.5	0.0	1.5	1.4
Mar 24, 2020	1.5	1.6	0.0	1.6	1.7	0.0	1.7	1.6	0.0
Mar 31, 2020	0.0	3.1	3.1	1.6	0.0	1.6	1.6	1.4	1.5
Apr 7, 2020	0.0	1.5	1.6	3.0	0.0	0.0	3.5	0.0	1.5
Apr 14, 2020	1.5	0.0	0.0	1.5	1.7	3.3	1.7	0.0	1.6
Apr 21, 2020	0.0	1.5	0.0	1.5	3.2	0.0	1.7	1.5	1.6
Apr 28, 2020	1.6	1.5	0.0	1.5	1.6	0.0	1.7	2.9	1.5
May 5, 2020	1.6	1.4	1.6	1.5	1.7	0.0	1.7	1.5	1.6
May 12, 2020	1.4	1.4	1.6	1.5	3.2	1.5	0.0	1.6	0.0
May 19, 2020	3.2	0.0	1.5	1.6	1.6	1.5	1.6	0.0	0.0
May 26, 2020	1.6	1.6	0.0	3.2	1.6	1.5	0.0	1.6	1.5
Jun 2, 2020	1.6	0.0	0.0	1.5	0.0	1.5	1.6	3.0	1.5
Jun 9, 2020	1.5	1.5	1.6	0.0	0.0	1.4	1.6	0.0	0.0
Jun 16, 2020	3.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Jun 23, 2020	1.5	1.5	1.6	0.0	1.6	1.5	0.0	3.0	1.6
Jun 30, 2020	1.5	0.0	0.0	1.5	1.6	1.5	1.7	2.9	0.0
Jul 7, 2020	0.0	0.0	0.0	3.0	0.0	1.5	0.0	1.4	1.6
Jul 14, 2020	0.0	0.0	3.2	1.6	0.0	1.6	0.0	1.6	1.6
Jul 21, 2020	1.4	1.4	0.0	1.5	1.7	1.5	1.7	3.1	3.0
Jul 28, 2020	1.6	0.0	1.6	0.0	0.0	1.6	1.6	0.0	1.6
Aug 4, 2020	2.9	0.0	0.0	2.9	0.0	1.6	1.7	3.1	3.0
Aug 11, 2020	1.5	0.0	0.0	0.0	1.6	1.6	0.0	0.0	1.5
Aug 18, 2020	1.5	1.5	1.7	0.0	3.3	0.0	1.6	1.6	2.9
Aug 25, 2020	0.0	0.0	1.6	1.6	1.6	1.5	1.6	1.4	1.5
Sep 1, 2020	1.5	1.5	0.0	3.3	1.7	0.0	1.6	2.8	3.1
Sep 8, 2020	1.5	0.0	1.6	0.0	1.6	1.5	1.7	0.0	1.5
Sep 15, 2020	1.5	1.5	1.5	0.0	1.6	0.0	1.7	0.0	1.6
Sep 22, 2020	1.5	0.0	1.6	1.5	0.0	1.5	1.6	2.9	1.6
Sep 29, 2020	0.0	0.0	3.2	0.0	3.5	0.0	1.6	1.5	0.0
Oct 6, 2020	1.6	1.5	1.6	1.6	1.6	3.2	1.7	1.5	0.0
Oct 13, 2020	1.5	0.0	1.5	1.6	1.6	3.2	1.7	1.6	1.6
Oct 20, 2020	1.5	1.5	1.6	0.0	1.6	1.6	0.0	1.5	1.5
Oct 27, 2020	0.0	0.0	0.0	2.9	0.0	0.0	1.7	1.4	0.0
Nov 3, 2020	0.0	1.6	1.6	0.0	1.6	0.0	3.4	0.0	1.4
Nov 10, 2020	0.0	1.6	1.6	3.0	1.6	1.6	1.7	0.0	1.4
Nov 17, 2020	0.0	1.6	0.0	1.5	1.6	0.0	0.0	1.6	0.0
Nov 24, 2020	0.0	0.0	1.6	1.5	1.6	3.2	1.7	1.6	1.4



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Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Dec 1, 2020	3.1	3.1	0.0	1.5	0.0	0.0	0.0	1.6	2.9
Dec 8, 2020	3.1	3.1	3.2	1.5	1.6	1.6	1.7	1.6	0.0
Dec 15, 2020	1.6	0.0	0.0	1.5	1.6	0.0	3.4	0.0	2.9
Dec 22, 2020	1.6	0.0	0.0	0.0	0.0	1.6	0.0	1.6	1.4
Dec 29, 2020	1.6	0.0	1.6	0.0	1.6	0.0	0.0	3.2	1.4
Jan 5, 2021	1.6	3.1	1.6	0.0	1.6	1.6	1.7	0.0	1.4
Jan 12, 2021	1.6	1.6	3.2	1.5	1.6	1.6	0.0	1.6	2.9
Jan 19, 2021	0.0	1.6	0.0	0.0	3.2	1.6	1.7	3.2	0.0
Jan 26, 2021	0.0	1.6	1.6	1.5	0.0	0.0	1.7	1.6	1.4
Feb 2, 2021	1.6	3.1	1.6	1.5	1.6	1.6	1.7	1.6	1.4
Feb 9, 2021	3.1	1.6	1.6	3.0	1.6	1.6	0.0	1.6	0.0
Feb 16, 2021	1.6	1.6	1.6	0.0	1.6	1.6	0.0	1.6	1.4
Feb 23, 2021	1.6	0.0	0.0	1.5	1.6	1.6	1.7	0.0	1.4
Mar 2, 2021	0.0	0.0	1.6	1.5	0.0	0.0	0.0	0.0	0.0
Mar 9, 2021	1.6	1.6	0.0	1.5	1.6	1.6	1.7	3.2	0.0
Mar 16, 2021	1.6	0.0	0.0	1.5	3.2	1.6	1.7	0.0	1.4
Mar 23, 2021	0.0	3.1	1.6	3.0	3.2	0.0	1.7	1.6	0.0
Mar 30, 2021	1.6	1.6	3.2	1.5	1.6	1.6	1.7	0.0	0.0
Apr 6, 2021	1.6	3.1	1.6	1.5	0.0	1.6	0.0	3.2	1.4
Apr 13, 2021	1.6	1.6	0.0	0.0	0.0	0.0	3.4	1.6	1.4
Apr 20, 2021	0.0	1.6	1.6	1.5	1.6	1.6	1.7	3.2	2.9
Apr 27, 2021	3.1	0.0	3.2	1.5	0.0	1.6	1.7	1.6	1.4
May 4, 2021	0.0	0.0	1.6	0.0	1.6	1.6	1.7	1.6	0.0
May 11, 2021	1.6	1.6	1.6	1.5	1.6	1.6	1.7	0.0	1.4
May 18, 2021	1.6	0.0	1.6	1.5	3.2	0.0	1.7	1.6	1.4
May 25, 2021	1.6	1.6	1.6	1.5	0.0	0.0	1.7	1.6	0.0
Jun 1, 2021	0.0	1.6	1.6	0.0	1.6	1.6	1.7	1.6	0.0
Jun 8, 2021	1.6	1.6	0.0	1.5	3.2	0.0	1.7	0.0	1.4
Jun 15, 2021	0.0	1.6	0.0	1.5	0.0	0.0	1.7	0.0	0.0
Jun 22, 2021	0.0	0.0	0.0	0.0	1.6	1.6	0.0	0.0	0.0
Jun 29, 2021	0.0	3.1	1.6	1.5	1.6	0.0	1.7	0.0	1.4
Jul 6, 2021	0.0	1.6	0.0	1.5	1.6	0.0	0.0	0.0	1.4
Jul 13, 2021	1.6	1.6	1.6	1.5	0.0	1.6	1.7	0.0	1.4
Jul 20, 2021	1.6	3.1	0.0	1.5	3.2	0.0	3.4	0.0	1.4
Jul 27, 2021	3.1	1.6	0.0	1.5	1.6	0.0	0.0	0.0	0.0
Aug 3, 2021	1.6	1.6	1.6	0.0	1.6	1.6	0.0	0.0	1.4
Aug 10, 2021	1.6	1.6	3.2	1.5	0.0	1.6	0.0	0.0	1.4
Aug 17, 2021	1.6	3.1	3.2	0.0	0.0	1.6	1.7	1.6	1.4
Aug 24, 2021	1.6	0.0	0.0	1.5	1.6	0.0	1.7	1.6	1.4
Aug 31, 2021	0.0	3.1	1.6	1.5	0.0	0.0	0.0	1.6	2.9
Sep 7, 2021	1.6	3.1	1.6	1.5	1.6	0.0	0.0	0.0	0.0
Sep 14, 2021	1.6	1.6	0.0	0.0	0.0	1.6	3.4	0.0	0.0
Sep 21, 2021	0.0	1.6	0.0	0.0	0.0	3.2	1.7	1.6	1.4

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Date	IA	IB	IC	NA	NB	NC	PA	PB	PC
Sep 28, 2021	0.0	3.1	0.0	0.0	1.6	1.6	0.0	3.2	1.4
Oct 5, 2021	1.6	0.0	0.0	1.5	1.6	0.0	1.7	0.0	1.4
Oct 12, 2021	3.1	1.6	0.0	1.5	3.2	1.6	0.0	0.0	2.9
Oct 19, 2021	1.6	1.6	1.6	1.5	0.0	1.6	3.4	1.6	2.9
Oct 26, 2021	1.6	3.1	0.0	1.5	1.6	1.6	1.7	0.0	1.4
Nov 2, 2021	0.0	1.6	1.6	0.0	1.6	1.6	1.7	3.2	0.0
Nov 9, 2021	1.6	1.6	3.2	1.5	1.6	0.0	1.7	1.6	1.4
Nov 16, 2021	1.6	1.6	1.6	0.0	0.0	1.6	1.7	1.6	0.0
Nov 23, 2021	1.6	0.0	1.6	3.0	1.6	1.6	0.0	1.6	1.4
Nov 30, 2021	0.0	1.6	1.6	3.0	1.6	3.2	0.0	1.6	1.4
Dec 7, 2021	1.6	0.0	0.0	3.0	1.6	1.6	0.0	1.6	0.0
Dec 14, 2021	0.0	1.6	0.0	1.5	0.0	0.0	1.7	1.6	1.4
Dec 21, 2021	0.0	1.6	3.2	1.5	3.2	0.0	1.7	0.0	1.4
Dec 28, 2021	1.6	0.0	3.2	3.0	1.6	3.2	1.7	1.6	0.0
Jan 4, 2022	1.6	1.6	1.6	1.5	0.0	0.0	3.4	1.6	0.0
Jan 11, 2022	0.0	0.0	3.2	1.5	3.2	1.6	1.7	1.6	1.4
Jan 18, 2022	1.6	0.0	0.0	1.5	1.6	1.6	0.0	1.6	1.4
Jan 25, 2022	0.0	1.6	1.6	1.5	0.0	1.6	1.7	1.6	0.0
Feb 1, 2022	1.6	0.0	1.6	1.5	0.0	1.6	1.7	1.6	0.0
Feb 8, 2022	1.6	1.6	1.6	1.5	1.6	0.0	1.7	0.0	0.0
Feb 15, 2022	1.6	0.0	1.6	1.5	1.6	0.0	1.7	1.6	1.4
Feb 22, 2022	1.6	0.0	0.0	1.5	3.2	1.6	1.7	1.6	1.4
Mar 1, 2022	0.0	1.6	1.6	0.0	0.0	1.6	1.7	1.6	1.4
Mar 8, 2022	1.6	1.6	1.6	0.0	0.0	1.6	3.4	1.6	0.0
Mar 15, 2022	1.6	3.1	1.6	0.0	0.0	1.6	1.7	1.6	1.4
Mar 22, 2022	0.0	3.1	1.6	1.5	1.6	1.6	3.4	1.6	1.4
Mar 29, 2022	1.6	0.0	1.6	0.0	1.6	0.0	0.0	0.0	0.0
Apr 5, 2022	1.6	0.0	1.6	1.5	0.0	1.6	1.7	1.6	1.4
Apr 12, 2022	1.6	1.6	0.0	0.0	1.6	1.6	0.0	0.0	0.0
Apr 19, 2022	1.6	1.6	0.0	1.5	1.6	1.6	0.0	1.6	0.0
Apr 26, 2022	0.0	1.6	0.0	1.5	0.0	1.6	1.7	0.0	0.0
May 3, 2022	0.0	1.6	3.2	0.0	1.6	0.0	1.7	1.6	0.0
May 10, 2022	1.6	1.6	1.6	1.5	1.6	1.6	0.0	1.6	1.4
May 17, 2022	1.6	1.6	0.0	1.5	1.6	1.6	1.7	3.2	1.4

Weekly GAS QUALITY (mL)
CARBON DIOXIDE VOLUME

Date	2229A	2229B	2229C
May 7, 2019	40.8	545.6	904.0
May 14, 2019	114.9	200.8	636.9
May 21, 2019	31.5	45.0	239.5
May 28, 2019	49.9	89.1	362.4
Jun 4, 2019	65.1	198.8	474.4
Jun 11, 2019	78.7	569.3	501.7

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ASTM D5511-12 - Anaerobic High Solids Biodegradability - 0526220722A

Date	2229A	2229B	2229C
Jun 18, 2019	70.9	571.7	147.6
Jun 25, 2019	66.2	443.8	108.7
Jul 2, 2019	67.9	461.2	265.4
Jul 9, 2019	70.7	417.5	431.3
Jul 16, 2019	87.0	241.5	562.5
Jul 23, 2019	78.6	122.7	583.1
Jul 30, 2019	79.4	486.4	380.9
Aug 6, 2019	71.5	584.3	134.0
Aug 13, 2019	106.3	420.2	587.6
Aug 20, 2019	107.0	91.0	441.6
Aug 27, 2019	117.4	95.9	494.9
Sep 3, 2019	104.2	110.1	256.5
Sep 10, 2019	115.8	464.4	87.8
Sep 17, 2019	374.8	254.5	196.3
Sep 24, 2019	360.5	120.9	436.2
Oct 1, 2019	329.2	115.1	502.4
Oct 8, 2019	416.9	196.5	82.9
Oct 15, 2019	402.2	179.8	139.8
Oct 22, 2019	287.7	202.7	204.0
Oct 29, 2019	408.0	174.5	218.6
Nov 5, 2019	273.1	204.1	196.2
Nov 12, 2019	101.1	208.4	238.9
Nov 19, 2019	91.6	223.4	210.5
Nov 26, 2019	88.5	210.3	213.9
Dec 3, 2019	299.1	345.0	245.7
Dec 10, 2019	121.8	127.5	151.6
Dec 17, 2019	69.9	92.0	108.8
Dec 24, 2019	64.2	85.3	112.9
Dec 31, 2019	60.3	85.1	126.3
Jan 7, 2020	60.4	87.9	126.7
Jan 14, 2020	56.6	83.1	120.5
Jan 21, 2020	61.7	85.0	60.4
Jan 28, 2020	77.6	85.7	54.6
Feb 4, 2020	72.8	86.2	40.3
Feb 11, 2020	61.2	89.0	52.9
Feb 18, 2020	69.5	80.7	51.6
Feb 25, 2020	70.9	47.3	51.0
Mar 3, 2020	68.0	54.1	42.7
Mar 10, 2020	70.4	47.7	57.3
Mar 17, 2020	61.0	55.3	60.1
Mar 24, 2020	63.1	49.9	57.0
Mar 31, 2020	74.6	61.7	47.8
Apr 7, 2020	75.8	53.4	51.7

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Date	2229A	2229B	2229C
Apr 14, 2020	58.9	57.3	58.0
Apr 21, 2020	64.1	51.1	52.6
Apr 28, 2020	56.5	50.8	42.2
May 5, 2020	37.9	54.9	43.3
May 12, 2020	38.8	62.6	42.1
May 19, 2020	32.4	35.0	44.4
May 26, 2020	40.7	36.1	33.9
Jun 2, 2020	41.6	40.7	35.8
Jun 9, 2020	28.4	49.0	47.2
Jun 16, 2020	29.4	39.0	37.5
Jun 23, 2020	31.9	42.4	43.5
Jun 30, 2020	440.7	45.4	49.3
Jul 7, 2020	146.7	46.8	41.2
Jul 14, 2020	154.3	37.1	35.3
Jul 21, 2020	166.3	44.8	44.6
Jul 28, 2020	66.1	31.5	45.5
Aug 4, 2020	144.3	42.6	43.9
Aug 11, 2020	120.0	38.4	42.1
Aug 18, 2020	96.7	40.7	59.1
Aug 25, 2020	40.3	46.6	45.0
Sep 1, 2020	140.7	39.4	40.5
Sep 8, 2020	130.5	43.4	46.0
Sep 15, 2020	27.3	35.6	41.0
Sep 22, 2020	27.5	44.6	50.3
Sep 29, 2020	34.6	26.5	43.0
Oct 6, 2020	47.9	24.6	46.4
Oct 13, 2020	104.5	47.1	43.6
Oct 20, 2020	54.9	37.6	41.5
Oct 27, 2020	89.2	34.0	48.6
Nov 3, 2020	65.7	46.2	40.6
Nov 10, 2020	78.1	46.2	47.4
Nov 17, 2020	90.4	38.2	47.4
Nov 24, 2020	67.1	35.0	40.6
Dec 1, 2020	65.7	44.6	47.4
Dec 8, 2020	128.8	39.8	49.1
Dec 15, 2020	113.7	38.2	50.8
Dec 22, 2020	206.8	44.6	47.4
Dec 29, 2020	19.2	35.0	49.1
Jan 5, 2021	16.4	46.2	42.3
Jan 12, 2021	1.4	36.6	42.3
Jan 19, 2021	0.0	35.0	50.8
Jan 26, 2021	23.3	41.4	50.8
Feb 2, 2021	4.1	33.4	47.4

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Date	2229A	2229B	2229C
Feb 9, 2021	0.0	33.4	44.0
Feb 16, 2021	516.4	46.2	44.0
Feb 23, 2021	97.2	38.2	40.6
Mar 2, 2021	200.0	44.6	44.0
Mar 9, 2021	0.0	39.8	44.0
Mar 16, 2021	245.2	41.4	50.8
Mar 23, 2021	80.8	38.2	40.6
Mar 30, 2021	108.2	38.2	49.1
Apr 6, 2021	-11.0	33.4	42.3
Apr 13, 2021	4.1	33.4	40.6
Apr 20, 2021	-6.8	33.4	45.7
Apr 27, 2021	15.1	47.8	40.6
May 4, 2021	164.4	38.2	45.7
May 11, 2021	250.7	43.0	47.4
May 18, 2021	23.3	44.6	50.8
May 25, 2021	69.9	127.3	42.3
Jun 1, 2021	54.8	127.3	44.0
Jun 8, 2021	39.7	95.5	44.0
Jun 15, 2021	37.0	81.2	44.0
Jun 22, 2021	43.8	122.6	40.6
Jun 29, 2021	11.0	71.6	42.3
Jul 6, 2021	11.0	58.9	13.5
Jul 13, 2021	13.7	90.7	15.2
Jul 20, 2021	12.3	133.7	15.2
Jul 27, 2021	13.7	41.4	13.5
Aug 3, 2021	11.0	30.2	15.2
Aug 10, 2021	12.3	41.4	15.2
Aug 17, 2021	9.6	43.0	15.2
Aug 24, 2021	13.7	39.8	13.5
Aug 31, 2021	11.0	41.4	16.9
Sep 7, 2021	11.0	43.0	15.2
Sep 14, 2021	12.3	41.4	16.9
Sep 21, 2021	12.3	12.7	11.9
Sep 28, 2021	13.7	14.3	15.2
Oct 5, 2021	6.8	15.9	16.9
Oct 12, 2021	6.8	12.7	13.5
Oct 19, 2021	6.8	12.7	15.2
Oct 26, 2021	5.5	14.3	11.9
Nov 2, 2021	9.6	14.3	13.5
Nov 9, 2021	2.7	14.3	15.2
Nov 16, 2021	1.4	15.9	11.9
Nov 23, 2021	0.0	14.3	15.2
Nov 30, 2021	0.0	15.9	33.9

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Date	2229A	2229B	2229C
Dec 7, 2021	1.4	12.7	42.3
Dec 14, 2021	-1.4	15.9	16.9
Dec 21, 2021	0.0	15.9	11.9
Dec 28, 2021	-1.4	12.7	8.5
Jan 4, 2022	1.4	23.9	0.0
Jan 11, 2022	8.2	15.9	0.0
Jan 18, 2022	1.4	6.4	0.0
Jan 25, 2022	5.5	6.4	1.7
Feb 1, 2022	1.4	-1.6	0.0
Feb 8, 2022	4.1	1.6	0.0
Feb 15, 2022	1.4	0.0	3.4
Feb 22, 2022	0.0	0.0	3.4
Mar 1, 2022	1.4	1.6	0.0
Mar 8, 2022	0.0	0.0	0.0
Mar 15, 2022	1.4	0.0	1.7
Mar 22, 2022	0.0	0.0	1.7
Mar 29, 2022	0.0	1.6	1.7
Apr 5, 2022	0.0	1.6	0.0
Apr 12, 2022	0.0	3.2	3.4
Apr 19, 2022	1.4	0.0	3.4
Apr 26, 2022	0.0	3.2	0.0
May 3, 2022	1.4	0.0	0.0
May 10, 2022	1.4	1.6	0.0
May 17, 2022	1.4	1.6	0.0

DATA ANALYSIS

	Inoculum	Negative	Positive	2229 - CLEAR FILM
Cumulative Gas Volume (mL)	2076.1	2094.6	10497.8	34484.2
Percent CH_4 (%)	44.1	44.1	38.6	52.6
Volume CH_4 (mL)	914.7	924.0	4051.9	18154.9
Mass CH_4 (g)	0.65	0.66	2.89	12.97
Percent CO_2 (%)	38.0	37.0	47.1	39.4
Volume CO_2 (mL)	788.5	775.7	4946.8	13591.2
Mass CO_2 (g)	1.55	1.52	9.72	26.70
Sample Mass (g)	10	10	10	20.0
Theoretical Sample Mass (g)	0.0	8.6	4.2	17.1
Biodegraded Mass (g)	0.91	0.91	4.82	17.01
Percent Biodegraded (%)		-0.0	92.6	94.1

CONCLUSION

Upon consideration of gas production, it becomes obvious that biodegradation has occurred Green Packaging Technology sample (ERL# 2229). It appears that the sample is exhausted. Considering the characteristics of the sample in this study, the performance and results are good.

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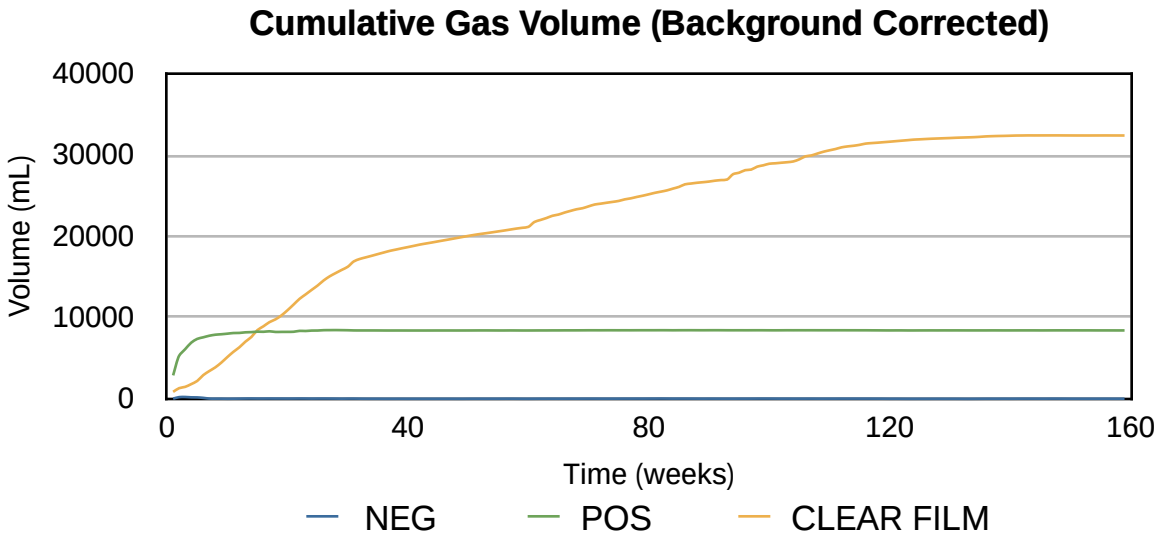

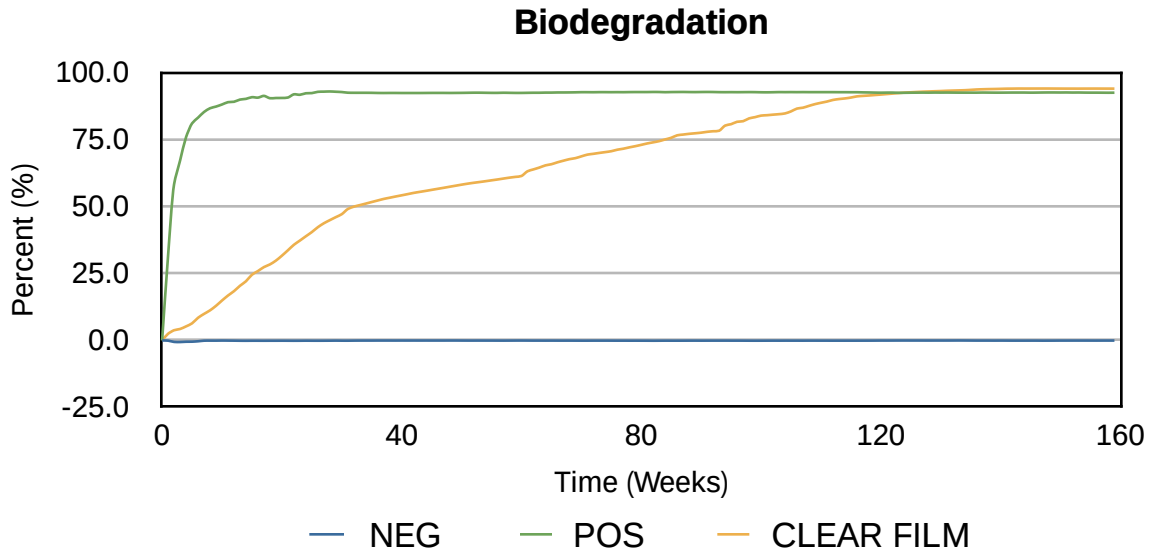

Over a 159 week period the Green Packaging Technology Sample indicates about 94% biodegradation. These samples easily surmounted the let down rate of the additive. It is important to note that negative movement in biodegradation is the result of the inoculum outperforming the sample or control or barometric pressure changes creating a vacuum on the inverted water column.

The positive control has achieved the required 70%+ biodegradation. These samples will go through many biological cycles as they biodegrade. It seems the syntrophic effect of the microbes has been fulfilled for this sample. It is not uncommon for this to take up to 90+ days before the microbial colonies reach a quorum. In this method, temperature and moisture are optimized and these results are not expected in all landfills.

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