

# TOWN OF DIGHTON

## Semi-Annual Landfill Gas Monitoring Report

Dighton Sanitary Landfill  
Tremont Street  
Dighton, Massachusetts

September 2019

Prepared For:

Town of Dighton  
2011 County Street  
Dighton, MA 02715

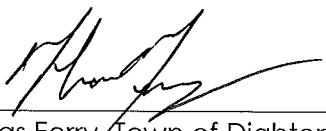


Green Seal Environmental, Inc.

## Certification

In accordance with the Massachusetts Solid Waste Management Regulations (310 CMR 19.011), the Town of Dighton, Massachusetts submits this certification for the attached September 2019 Semi-Annual Landfill Gas Monitoring Report prepared for us by Green Seal Environmental, Inc.

I, Thomas Ferry, attest under the pains and penalties of perjury that: (a) I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement; (b) based upon my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate, and complete; (c) I am fully authorized to bind the entity required to submit these documents and to make this attestation on behalf of such entity; (d) I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information.



\_\_\_\_\_  
Thomas Ferry, Town of Dighton, Highway Superintendent

Date: 10/24/19



# Green Seal Environmental, Inc.

ENGINEERING | ENVIRONMENTAL | ENERGY SERVICES

114 State Road, Bldg. B, Sagamore Beach, MA 02562

T: 508.888.6034 F: 508.888.1506 www.gseenv.com

MA-SDO Certified D/WBE, D/MBE

SBA Certified EDWOSB

MassDOT Certified | DCAMM Certified

October 4, 2019

Mr. Mark Dakers

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Southeast Regional Office

20 Riverside Drive

Lakeville, Massachusetts 02347

RE: Post-Closure Landfill Gas Monitoring Report – September 2019

Town of Dighton Sanitary Landfill

865 Tremont Street, Dighton, Massachusetts

Dear Mr. Dakers:

On behalf of the Town of Dighton, Green Seal Environmental, Inc. (GSE) conducted semi-annual, post-closure landfill gas monitoring at the Town of Dighton Sanitary Landfill and Transfer Station in Dighton, Massachusetts on September 10, 2019. The sampling was performed in accordance with Massachusetts Solid Waste Management Regulations (310 CMR 19.132) and the Post Closure and Monitoring Maintenance Plan (PCMMP) for the landfill, approved in August of 2010.

In accordance with the 2010 PCMMP, GSE conducted post-closure landfill gas monitoring at the following locations:

**Gas Monitoring Wells:**

- GM-1
- GM-2
- GM-3
- GM-4

**Site Structures (Ambient Air Monitoring Locations):**

- Animal Shelter/Kennel
- Universal Waste Shed
- Attendant's Booth
- Garage Stand
- Trailer

Each monitoring location was sampled for methane ( $\text{CH}_4$ ) in percent by volume and percent of the Lower Explosive Limit (LEL), carbon dioxide ( $\text{CO}_2$ ) in percent by volume, oxygen ( $\text{O}_2$ ) in percent by volume, and hydrogen sulfide ( $\text{H}_2\text{S}$ ) in parts per million (PPM) using a GEM-2000 meter; and volatile organic compounds (VOCs) in parts per million (PPM) using a MiniRae3000 photoionization detector (PID) with lamp 10.6 eV.

# Green Seal Environmental, Inc.

Initial concentrations were recorded at each gas monitoring well and the well was then purged of 10 cubic liters of air (5 L/minute for two minutes), using a Gilian GilAir Pump. After purging, final readings were recorded at each well. Prior to gas monitoring, ambient background conditions were recorded. Results of the monitoring event are summarized below:

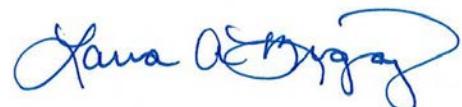
- Methane was detected above ambient conditions at gas monitoring wells GM-1, GM-3, and GM-4 all at maximum concentrations of 0.1% by volume, equivalent to 2% of the LEL. GM-1 and GM-3 are located along the northwest perimeter of the C&D capped fill area in close proximity to the animal shelter, garage stand, and trailer buildings. Methane was not detected in any nearby structures.
- Volatile organic compounds were detected above ambient conditions at most monitoring locations at concentrations between 0.1 ppm (multiple locations) and 100.5 ppm (GM-2).
- Oxygen was detected at all subsurface monitoring locations at concentrations between 6.0% and 20.0% by volume. Oxygen was also detected at all ambient air sampling locations at a concentration of 20.8%.
- Carbon dioxide was detected at all gas monitoring wells with concentrations ranging between 1.6% and 10.9%. Carbon dioxide was not detected at any ambient air monitoring locations.

Landfill gas sampling results are tabulated and presented in the attached Table 1. The next semi-annual landfill gas monitoring event is scheduled to occur in February of 2020.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

**GREEN SEAL ENVIRONMENTAL, INC.**



Laura A. Bugay, P.E.  
Vice President of Municipal and Infrastructure

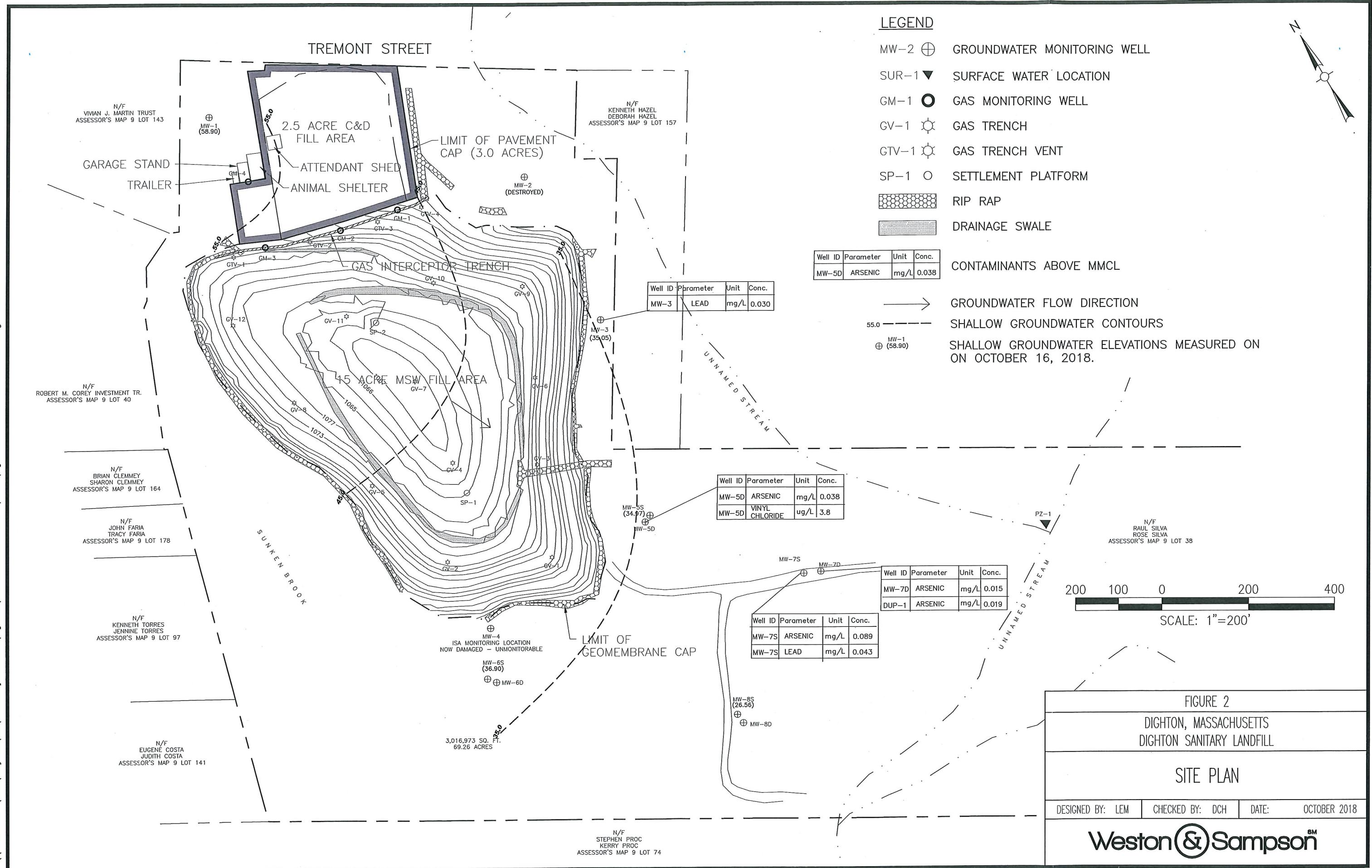
c: Dighton Board of Health  
Tom Ferry, Dighton Highway Department

ATTACHMENT 1

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SITE PLAN





ATTACHMENT 2

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LANDFILL GAS SAMPLING SUMMARY TABLE



TABLE 1: September 2019 Landfill Gas Monitoring Data

Dighton Landfill, Tremont Street, Dighton MA

Gas Monitoring Locations	Methane (% by volume)		Methane (% LEL)		VOCs (ppm)		Hydrogen Sulfide (ppm)		Carbon Dioxide (%)		Oxygen (%)		Barometric Pressure (in. Hg)
	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	
<b>Background</b>													
Pre-Monitoring/Background	0		0		0		0		0		20.8		30.4
<b>Landfill Gas Monitoring Wells</b>													
GM-1	0.1	0	2	0	0.2	1.0	0	0	1.6	10.9	20.0	6.0	30.43
GM-2	0	0	0	0	6.2	100.5	0	0	1.9	6.5	18.3	12.9	30.43
GM-3	0.1	0	2	0	1.6	4.6	0	0	0	10.8	19.8	10.0	30.43
GM-4	0	0.1	0	2	5.3	2.0	0	0	1.7	1.6	19.0	19.2	30.43
<b>Ambient Air Monitoring Locations</b>													
Kennel	0		0		0.1		0		0		20.8		30.43
Universal Waste Shed	0		0		0		0		0		20.8		30.43
Attendant Booth	0		0		0		0		0		20.8		30.43
Garage Stand	0		0		0.1		0		0		20.8		30.43
Trailer	0		0		0		0		0		20.8		30.43

Notes:

1. Sampling conducted on 9/10/2019
2. Methane, oxygen, carbon dioxide, and hydrogen sulfide were measured using a Landtec GEM-2000 gas meter
3. Volatile Organic Compounds (VOCs) were measured using a MiniRae PID, lamp 10.6 eV
4. Wells were purged with GilAir Pump until readings were stable before steady state readings were recorded

LEL: Lower Explosive Limit

ppm: Parts Per Million

in Hg: Inches of Mercury; barometric pressure unit



#### Providing Innovative Solutions For:

- Environmental Services
- Solid Waste Management
- Hazardous Waste
- Facilities Management
- Survey & Land Development
- Civil Engineering
- Construction Management
- Wetland Restoration

# TOWN OF DIGHTON

## Semi-Annual Landfill Gas Monitoring Report

Dighton Sanitary Landfill  
Tremont Street  
Dighton, Massachusetts

March 2020

Prepared For:

Town of Dighton  
2011 County Street  
Dighton, MA 02715



Green Seal Environmental, Inc.

## Certification

In accordance with the Massachusetts Solid Waste Management Regulations (310 CMR 19.011), the Town of Dighton, Massachusetts submits this certification for the attached March 2020 Semi-Annual Landfill Gas Monitoring Report prepared for us by Green Seal Environmental, Inc.

I, Thomas Ferry, attest under the pains and penalties of perjury that: (a) I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement; (b) based upon my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate, and complete; (c) I am fully authorized to bind the entity required to submit these documents and to make this attestation on behalf of such entity; (d) I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information.

---

Thomas Ferry, Town of Dighton, Highway Superintendent

Date: \_\_\_\_\_



# Green Seal Environmental, Inc.

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MA-SDO Certified WBE, MBE  
MassDOT Certified | DCAMM Certified

April 1, 2020

Mr. Mark Dakers  
**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, Massachusetts 02347

RE: Post-Closure Landfill Gas Monitoring Report – March 2020  
Town of Dighton Sanitary Landfill  
865 Tremont Street, Dighton, Massachusetts

Dear Mr. Dakers:

On behalf of the Town of Dighton, Green Seal Environmental, Inc. (GSE) conducted semi-annual, post-closure landfill gas monitoring at the Town of Dighton Sanitary Landfill and Transfer Station in Dighton, Massachusetts on March 31, 2020. The sampling was performed in accordance with Massachusetts Solid Waste Management Regulations (310 CMR 19.132) and the Post-Closure and Monitoring Maintenance Plan (PCMMP) for the landfill, approved in August of 2010.

In accordance with the 2010 PCMMP, GSE conducted post-closure landfill gas monitoring at the following locations:

**Gas Monitoring Wells:**

- GM-1
- GM-2
- GM-3
- GM-4

**Site Structures (Ambient Air Monitoring Locations):**

- Animal Shelter/Kennel
- Universal Waste Shed
- Attendant's Booth
- Garage Stand
- Trailer

Each monitoring location was sampled for methane ( $\text{CH}_4$ ) in percent by volume and percent of the Lower Explosive Limit (LEL), carbon dioxide ( $\text{CO}_2$ ) in percent by volume, oxygen ( $\text{O}_2$ ) in percent by volume, and hydrogen sulfide ( $\text{H}_2\text{S}$ ) in parts per million by volume (ppmv) using a Landtec GEM 2000 gas

# Green Seal Environmental, Inc.

meter; and volatile organic compounds (VOCs) in ppmv using a MiniRae3000 photoionization detector (PID) with lamp 10.6 eV.

Initial concentrations were recorded at each gas monitoring well, and each well was then purged for approximately four minutes. After purging, final readings were recorded at each well. Prior to gas monitoring, ambient background conditions were recorded. Results of the monitoring event are summarized below:

- Methane was not detected at any subsurface gas monitoring wells or nearby site structures.
- Volatile organic compounds were not detected at any of the monitoring locations with the exception of the kennel at a concentration of 0.3 ppmv. A propane heater was being used in the kennel during the air monitoring and is likely the source of VOCs.
- Hydrogen sulfide was not detected above ambient conditions of 1.0% at any of the gas monitoring wells with the exception of GM-4 at a concentration of 2.0 ppmv. Hydrogen sulfide was not detected in any nearby site structures.
- Carbon dioxide was detected at all gas monitoring wells with concentrations ranging between 0.1% and 5.6%. Carbon dioxide was not detected at any ambient air monitoring locations.
- Oxygen was detected at all subsurface monitoring locations at concentrations between 12.5% and 20.6% by volume. Oxygen was detected at all ambient air sampling locations at normal concentrations ranging from 21.0% to 21.2%.

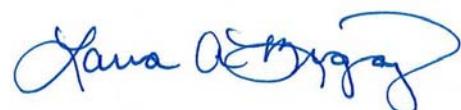
Landfill gas sampling results are tabulated and presented in Table 1 included as Attachment 2. Results are consistent with historical sampling data.

The next semi-annual landfill gas monitoring event is scheduled to occur in September of 2020.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

**GREEN SEAL ENVIRONMENTAL, INC.**



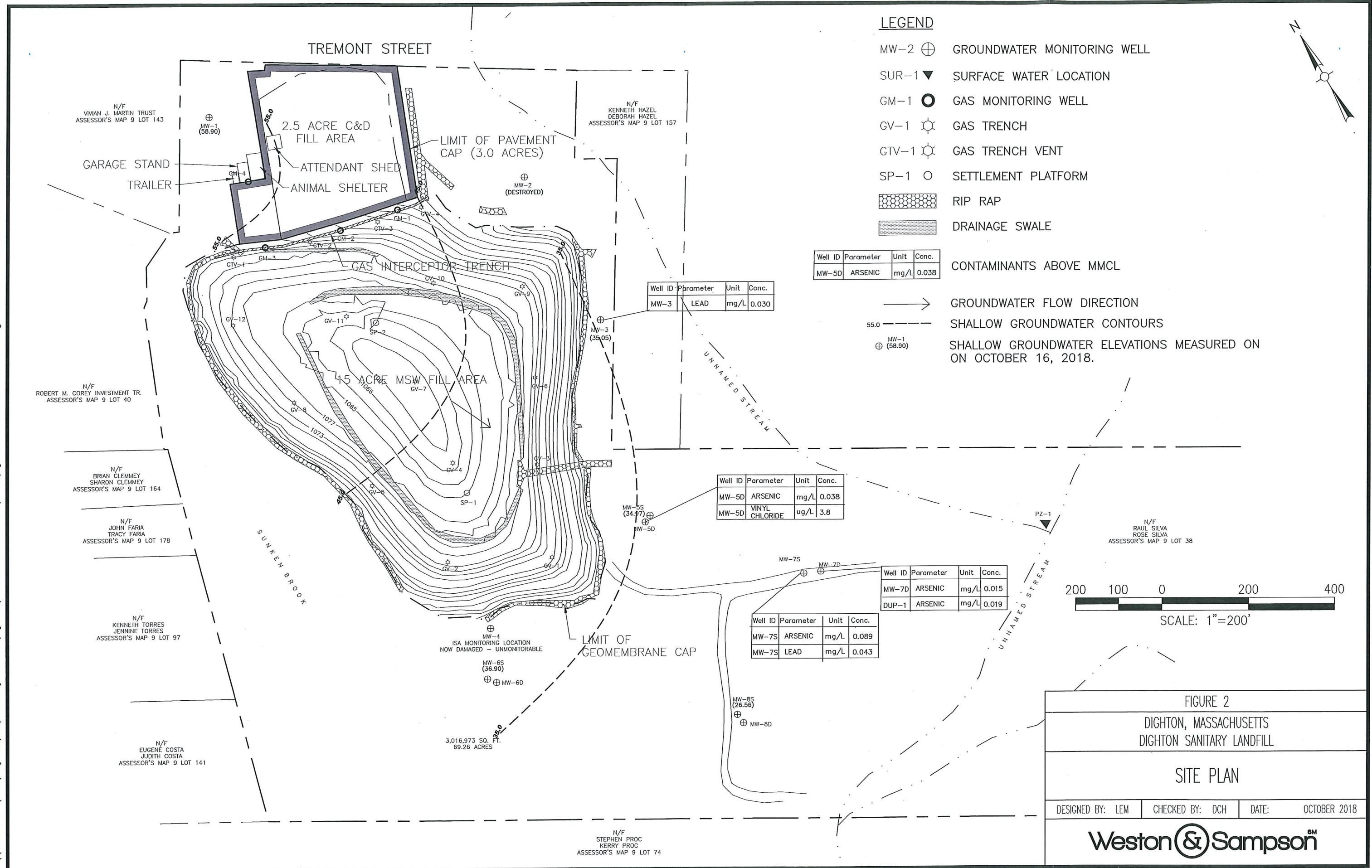
Laura A. Bugay, P.E.  
Executive Vice President

c: Dighton Board of Health  
Tom Ferry, Dighton Highway Department

ATTACHMENT 1

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SITE PLAN



ATTACHMENT 2

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LANDFILL GAS SAMPLING SUMMARY TABLE

TABLE 1: March 2020 Landfill Gas Monitoring Data

Dighton Landfill, Tremont Street, Dighton MA

Gas Monitoring Locations	Methane (% by volume)		Methane (% LEL)		VOCs (ppm)		Hydrogen Sulfide (ppm)		Carbon Dioxide (%)		Oxygen (%)		Barometric Pressure (in. Hg)
	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	
<b>Background</b>													
Pre-Monitoring/Background	0.0		0.0		0.0		1.0		0.0		21.0		30.07
<b>Landfill Gas Monitoring Wells</b>													
GM-1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	0.1	0.1	20.4	20.5	30.07
GM-2	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.1	0.0	20.5	20.6	30.07
GM-3	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.9	5.6	19.8	12.5	30.07
GM-4	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.6	0.5	19.3	19.2	30.07
<b>Ambient Air Monitoring Locations</b>													
Kennel	0.0		0.0		0.3		1.0		0.0		21.0		30.07
Universal Waste Shed	0.0		0.0		0.0		1.0		0.0		21.0		30.07
Attendant Booth	0.0		0.0		0.0		1.0		0.0		21.0		30.07
Garage Stand	0.0		0.0		0.0		1.0		0.0		21.1		30.07
Trailer	0.0		0.0		0.0		1.0		0.0		21.2		30.07

## Notes:

1. Sampling conducted on March 31, 2020.
2. Methane, oxygen, carbon dioxide, and hydrogen sulfide were measured using a Landtec GEM 2000 gas meter.
3. Volatile Organic Compounds (VOCs) were measured using a MiniRae PID, lamp 10.6 eV.
4. Wells were purged with the gas meter until readings were stable before steady state readings were recorded.
5. LEL: Lower Explosive Limit
6. ppm = parts per million.
7. in Hg = inches of mercury; barometric pressure unit.



#### Providing Innovative Solutions For:

- Environmental Services
- Solid Waste Management
- Hazardous Waste
- Facilities Management
- Survey & Land Development
- Civil Engineering
- Construction Management
- Wetland Restoration

# TOWN OF DIGHTON

## Semi-Annual Landfill Gas Monitoring Report

Dighton Sanitary Landfill  
Tremont Street  
Dighton, Massachusetts

March 2021

Prepared For:

Town of Dighton  
2011 County Street  
Dighton, MA 02715

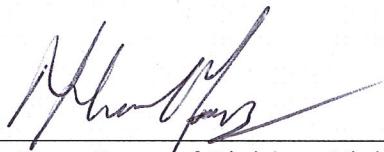


Green Seal Environmental, LLC

## Certification

In accordance with the Massachusetts Solid Waste Management Regulations (310 CMR 19.011), the Town of Dighton, Massachusetts submits this certification for the attached March 2021 Semi-Annual Landfill Gas Monitoring Report prepared for us by Green Seal Environmental, LLC.

I, Thomas Ferry and Todd Pilling, attest under the pains and penalties of perjury that: (a) I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement; (b) based upon my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate, and complete; (c) I am fully authorized to bind the entity required to submit these documents and to make this attestation on behalf of such entity; (d) I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information.



Thomas Ferry, Town of Dighton, Highway Superintendent

Date: 8/19/21



Todd Pilling, Town of Dighton, Health Agent/ Inspector

Date: 08/19/2021



# Green Seal Environmental, LLC

114 State Road, Bldg. B, Sagamore Beach, MA 02562  
T: 508.888.6034 F: 508.888.1506  
[www.gseenv.com](http://www.gseenv.com)

MassDOT Certified  
DCAMM Certified

May 10, 2021

Mr. Mark Dakers

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Southeast Regional Office  
20 Riverside Drive  
Lakeville, Massachusetts 02347

RE: Post-Closure Landfill Gas Monitoring Report – March 2021  
Town of Dighton Sanitary Landfill  
865 Tremont Street, Dighton, Massachusetts

Dear Mr. Dakers:

On behalf of the Town of Dighton, Green Seal Environmental, LLC (GSE) conducted semi-annual, post-closure landfill gas monitoring at the Town of Dighton Sanitary Landfill and Transfer Station in Dighton, Massachusetts on March 17, 2021. The sampling was performed in accordance with Massachusetts Solid Waste Management Regulations (310 CMR 19.132) and the Post-Closure and Monitoring Maintenance Plan (PCMMP) for the landfill, approved in August of 2010.

In accordance with the 2010 PCMMP, GSE conducted post-closure landfill gas monitoring at the following locations:

Subsurface Gas Monitoring Wells:

- GM-1
- GM-2
- GM-3
- GM-4

Site Structures (Ambient Air Monitoring Locations):

- Animal Shelter/Kennel
- Universal Waste Shed
- Attendant's Booth
- Garage Stand
- Trailer

Each monitoring location was sampled for methane (CH<sub>4</sub>) in percent by volume and percent of the Lower Explosive Limit (LEL), carbon dioxide (CO<sub>2</sub>) in percent by volume, oxygen (O<sub>2</sub>) in percent by volume, and hydrogen sulfide (H<sub>2</sub>S) in parts per million by volume (ppmv) using a Landtec GEM 5000 gas meter; and volatile organic compounds (VOCs) in ppmv using a MiniRae 3000 photoionization detector (PID) with lamp 10.6 eV.

## Green Seal Environmental, LLC

Initial concentrations were recorded at each gas monitoring well and the well was then purged of 10 cubic liters of air (5 L/minute for two minutes), using a Gilian GilAir Plus Pump. After purging, final readings were recorded at each well. Prior to gas monitoring, ambient background conditions were recorded. Results of the monitoring event are summarized below:

- Methane was not detected at any subsurface gas monitoring wells or ambient air monitoring locations.
- VOCs were detected at most subsurface gas monitoring wells and ambient air monitoring locations at concentrations ranging between 0.1 ppmv and 0.7 ppmv.
- Hydrogen sulfide was not detected at any subsurface gas monitoring wells or ambient air monitoring locations.
- Carbon dioxide was detected at all subsurface gas monitoring wells at concentrations ranging between 0.1% and 5.3%. Carbon dioxide was detected at one ambient air monitoring location at a concentration of 0.1%.
- Oxygen was detected at all subsurface monitoring locations at final concentrations ranging between 14.3% and 21.4% by volume. Oxygen was detected at all ambient air sampling locations at concentrations ranging between 21.3% and 21.5%.

Landfill gas sampling results are tabulated and presented in Table 1 included as Attachment 2. Results are consistent with historical sampling data.

The next semi-annual landfill gas monitoring event is scheduled to occur in September of 2021.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

**GREEN SEAL ENVIRONMENTAL, LLC**



Laura A. Bugay, P.E.  
Executive Vice President

c: Dighton Board of Health  
Tom Ferry, Dighton Highway Department

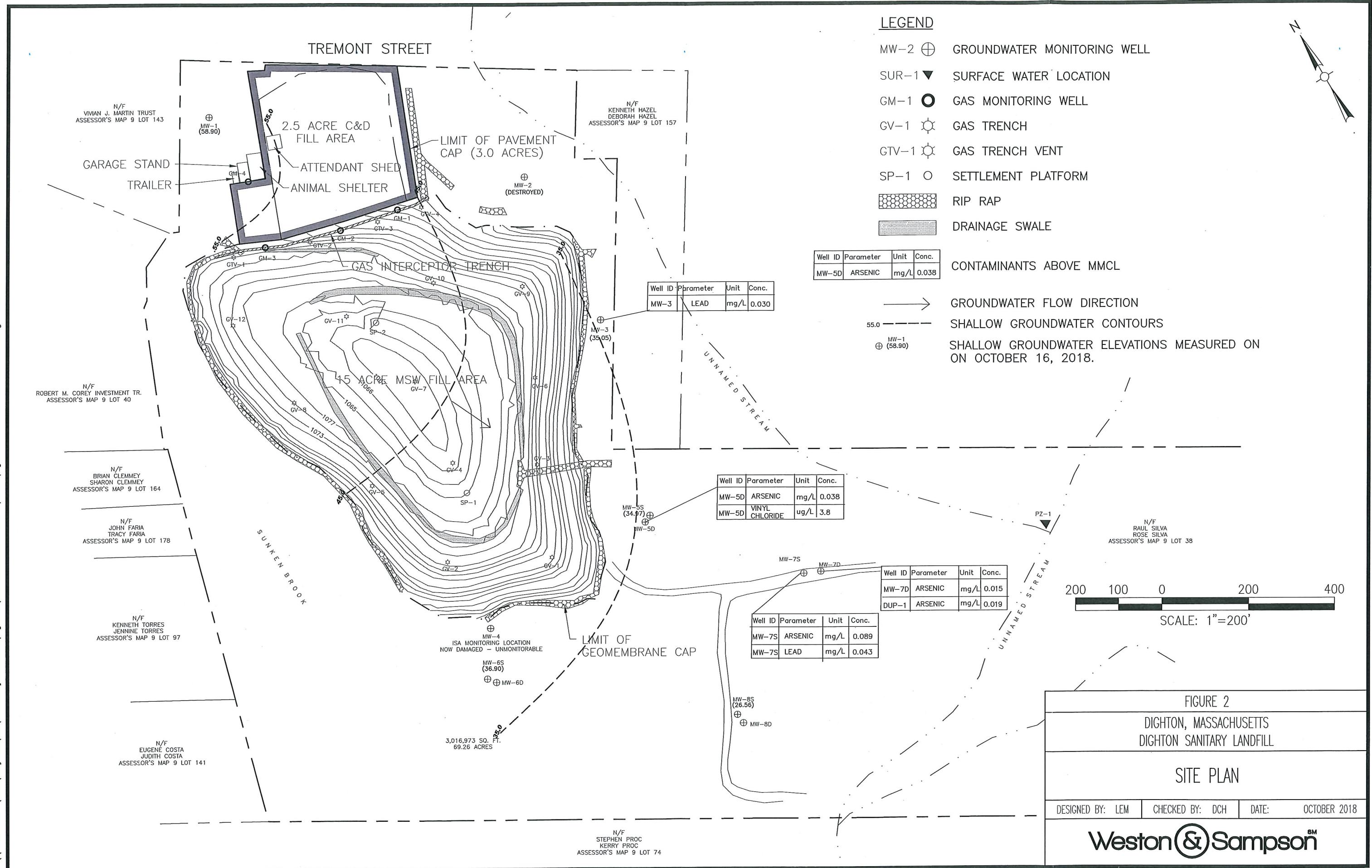
ATTACHMENT 1

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SITE PLAN





ATTACHMENT 2

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LANDFILL GAS SAMPLING SUMMARY TABLE



**TABLE 1: March 2021 Landfill Gas Monitoring Data**

Dighton Landfill, Tremont Street, Dighton MA

Gas Monitoring Locations	Methane (% by volume)		Methane (% LEL)		VOCs (ppm)		Hydrogen Sulfide (ppm)		Carbon Dioxide (%)		Oxygen (%)		Barometric Pressure (in. Hg)
	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	
<b>Background</b>													
Pre-Monitoring/Background	0.0		0.0		0.0		0		0.1		21.4		29.84
<b>Landfill Gas Monitoring Wells</b>													
GM-1	0.0	0.0	0.0	0.0	0.1	0.1	0	0	0.0	0.1	21.1	20.6	29.93
GM-2	0.0	0.0	0.0	0.0	0.7	0.1	0	0	0.2	0.2	21.1	21.4	29.93
GM-3	0.0	0.0	0.0	0.0	0.1	0.3	0	0	0.0	5.3	21.5	14.3	29.93
GM-4	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.7	0.7	21.0	20.7	29.93
<b>Ambient Air Monitoring Locations</b>													
Kennel	0.0		0.0		0.0		0		0.0		21.5		29.93
Universal Waste Shed	0.0		0.0		0.1		0		0.0		21.3		29.93
Attendant Booth	0.0		0.0		0.1		0		0.0		21.3		29.93
Garage Stand	0.0		0.0		0.1		0		0.0		21.3		29.93
Trailer	0.0		0.0		0.1		0		0.1		21.4		29.93

Notes:

1. Sampling conducted on March 17, 2021.
2. Methane, oxygen, carbon dioxide, and hydrogen sulfide were measured using a Landtec GEM 5000 gas meter.
3. Volatile Organic Compounds (VOCs) were measured using a MiniRae 3000 PID, lamp 10.6 eV.
4. Wells were purged with a Gilian GilAir Plus Pump before steady state readings were recorded.
5. LEL: Lower Explosive Limit
6. ppm = parts per million.
7. in. Hg = inches of mercury; barometric pressure unit.
8. Reported concentrations adjusted in consideration of baseline ambient equipment readings (CO<sub>2</sub>: 0.1%)



#### Providing Innovative Solutions For:

- Environmental Services
- Solid Waste Management
- Hazardous Waste
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- Survey & Land Development
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- Wetland Restoration

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# TOWN OF DIGHTON

## Semi-Annual Landfill Gas Monitoring Report

Dighton Sanitary Landfill  
Tremont Street  
Dighton, Massachusetts

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March 2022

Prepared For:

Town of Dighton  
2011 County Street  
Dighton, MA 02715



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Green Seal Environmental, LLC

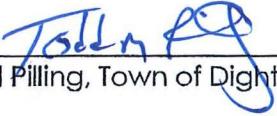
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I, Thomas Ferry and Todd Pilling, attest under the pains and penalties of perjury that: (a) I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement; (b) based upon my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate, and complete; (c) I am fully authorized to bind the entity required to submit these documents and to make this attestation on behalf of such entity; (d) I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information.

  
\_\_\_\_\_  
Thomas Ferry, Town of Dighton, Highway Superintendent

Date: 6/1/22

  
\_\_\_\_\_  
Todd Pilling, Town of Dighton, Health Agent/ Inspector

Date: 6/1/22



# Green Seal Environmental, LLC

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MassDOT Certified

April 7, 2022

Mr. Mark Dakers

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Southeast Regional Office  
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Lakeville, Massachusetts 02347

RE: Post-Closure Landfill Gas Monitoring Report – March 2022  
Town of Dighton Sanitary Landfill  
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Dear Mr. Dakers:

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In accordance with the 2010 PCMMP, GSE conducted post-closure landfill gas monitoring at the following locations:

Gas Monitoring Wells:

- GM-1
- GM-2
- GM-3
- GM-4

Site Structures (Ambient Air Monitoring Locations):

- Kennel
- Universal Waste Shed
- Attendant's Booth
- Garage Stand
- Trailer (Animal Shelter)

Each monitoring location was sampled for methane (CH<sub>4</sub>) in percent by volume and percent of the Lower Explosive Limit (LEL), carbon dioxide (CO<sub>2</sub>) in percent by volume, oxygen (O<sub>2</sub>) in percent by volume, and hydrogen sulfide (H<sub>2</sub>S) in parts per million by volume (ppmv) using a Landtec GEM 5000 gas meter; and volatile organic compounds (VOCs) in ppmv using a MiniRae 3000 photoionization detector (PID) with lamp 10.6 eV.

## Green Seal Environmental, LLC

Initial concentrations were recorded at each gas monitoring well and the well was then purged of 10 cubic liters of air (5 L/minute for two minutes), using a Gilian GilAir Plus Pump. After purging, final readings were recorded at each well. Prior to gas monitoring, ambient background conditions were recorded. Results of the monitoring event are summarized below:

- Methane was not detected at any subsurface gas monitoring wells or ambient air monitoring locations during this sampling event.
- Volatile organic compounds were detected at three of the four gas monitoring wells (GM-1, GM-2, and GM-4) with a final concentration of 0.1 ppmv in all three locations. Volatile organic compounds were also detected in the animal shelter trailer with a final concentration of 0.1 ppmv.
- Hydrogen sulfide was detected at all subsurface gas monitoring wells with final concentrations ranging between 1.0 ppmv and 2.0 ppmv. Hydrogen sulfide was not detected at any ambient air monitoring locations during this sampling event.
- Carbon dioxide was not detected above background levels of carbon dioxide (0.1% by volume) at any monitoring locations.
- Oxygen was detected at all subsurface monitoring locations at final concentrations ranging between 21.1% and 21.9% by volume. Oxygen was detected at all ambient air sampling locations at concentrations ranging between 21.0% and 22.0%.

Landfill gas sampling results are tabulated and presented in Table 1 included as Attachment 2. Results are consistent with historical sampling data.

The next semi-annual landfill gas monitoring event is scheduled to occur in September 2022.

Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

**GREEN SEAL ENVIRONMENTAL, LLC**



Laura A. Bugay, P.E.  
Executive Vice President

c: Dighton Board of Health  
Tom Ferry, Dighton Highway Department

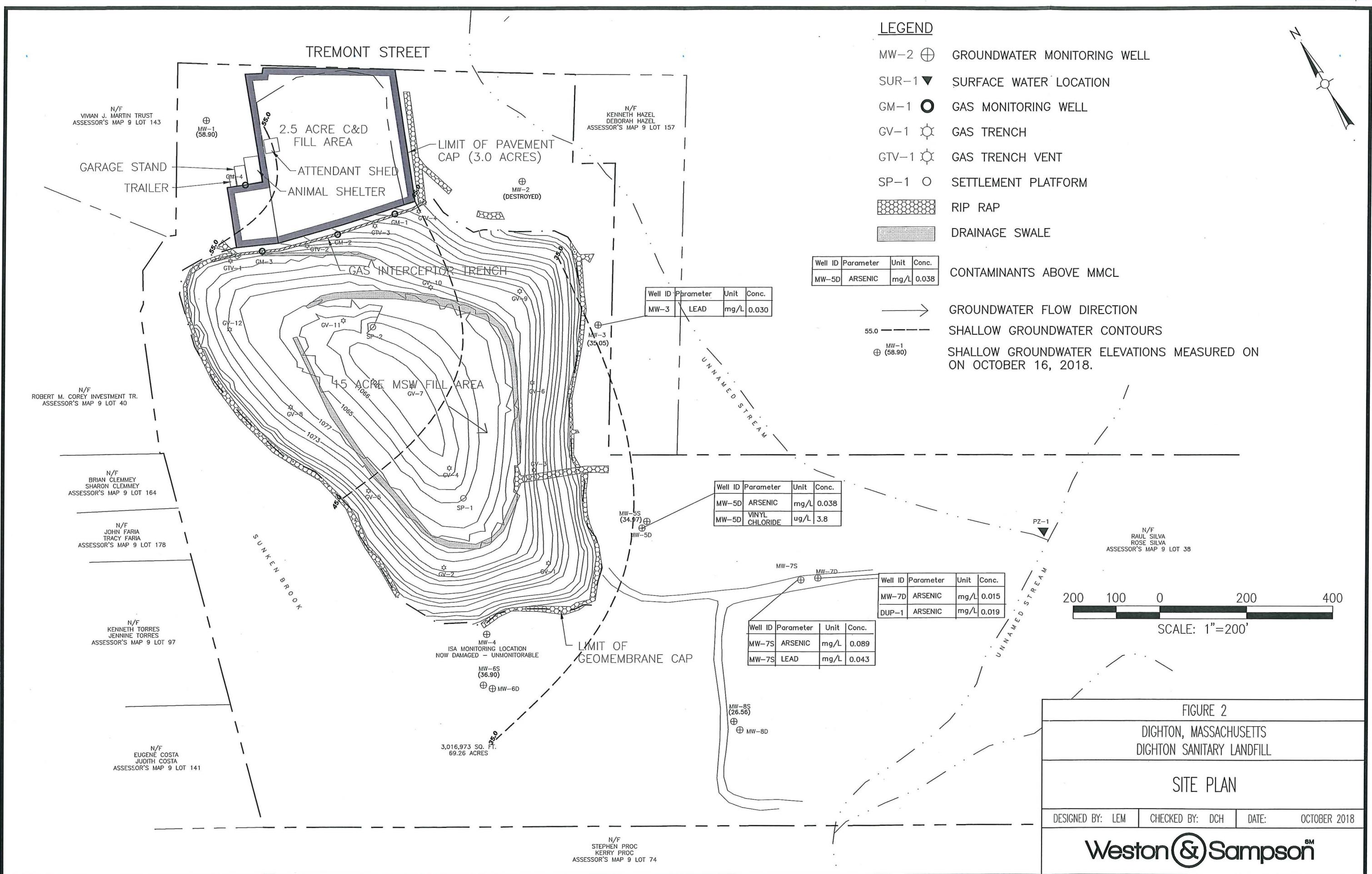
ATTACHMENT 1

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SITE PLAN





ATTACHMENT 2

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LANDFILL GAS SAMPLING SUMMARY TABLE



**TABLE 1: March 2022 Landfill Gas Monitoring Data**

Dighton Landfill, Tremont Street, Dighton MA

Gas Monitoring Locations	Methane (% by volume)		Methane (% LEL)		VOCs (ppm)		Hydrogen Sulfide (ppm)		Carbon Dioxide (%)		Oxygen (%)		Barometric Pressure (in. Hg)
	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	Initial State	Steady State	
<b>Background</b>													
Pre-Monitoring/Background	0.0		0.0		0.0		0.0		0.1		21.0		29.93
<b>Landfill Gas Monitoring Wells</b>													
GM-1	0.0	0.0	0.0	0.0	0.1	0.1	2.0	2.0	0.1	0.1	21.7	21.9	29.92
GM-2	0.0	0.0	0.0	0.0	0.2	0.1	1.0	2.0	0.1	0.1	21.4	21.7	29.92
GM-3	0.0	0.0	0.0	0.0	0.1	0.0	2.0	1.0	0.5	0.1	20.6	21.4	29.92
GM-4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	1.0	0.1	0.1	21.1	21.1	29.94
<b>Ambient Air Monitoring Locations</b>													
Kennel	0.0		0.0		0.0		0.0		0.1		22.0		29.93
Universal Waste Shed	0.0		0.0		0.0		0.0		0.1		22.0		29.93
Attendant Booth	0.0		0.0		0.0		0.0		0.1		21.0		29.93
Garage Stand	0.0		0.0		0.0		0.0		0.1		21.0		29.93
Trailer (Animal Shelter)	0.0		0.0		0.1		0.0		0.1		21.3		29.94

## Notes:

1. Sampling conducted on March 29, 2022.
2. Methane, oxygen, carbon dioxide, and hydrogen sulfide were measured using a Landtec GEM 5000 gas meter.
3. Volatile Organic Compounds (VOCs) were measured using a MiniRae 3000 PID, lamp 10.6 eV.
4. Wells were purged with a Gilian GilAir Plus Pump before steady state readings were recorded.
5. LEL: Lower Explosive Limit
6. ppm = parts per million.
7. in. Hg = inches of mercury; barometric pressure unit.



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