

Landfill Gas Monitoring Plan

WI High Point C&D Landfill
High Point, North Carolina
NC Solid Waste Permit No. 41-16

Prepared for:

WI High Point, LLC
High Point, North Carolina



June 2014

Prepared by:

NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



PRINTED ON 100% RECYCLED PAPER

© 2013 Smith Gardner, Inc.

This document is intended for the sole use of the client for which it was prepared and for the purpose agreed upon by the client and Smith Gardner, Inc.

This page intentionally left blank.

Landfill Gas Monitoring Plan

WI High Point C&D Landfill
High Point, North Carolina
NC Solid Waste Permit No. 41-16

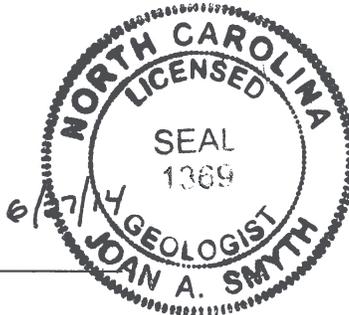
Prepared For:

WI High Point, LLC
High Point, North Carolina

S+G Project No. WI High Point-13-1



Joan A. Smyth, P.G.
Senior Hydrogeologist



June 2014

NC LIC NO C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

This page intentionally left blank.

WI High Point C&D Landfill High Point, North Carolina

Landfill Gas Monitoring Plan

Table of Contents

		<u>Page</u>
1.0	INTRODUCTION	1
1.1	Regulatory Requirements – C&D Landfills	1
1.2	Guidance Document	2
1.3	Contact Information	2
	1.3.1 WI High Point, LLC	2
	1.3.2 Waste Industries USA, Inc.	2
	1.3.3 North Carolina Department of Environment and Natural Resources	2
1.4	Existing Site Conditions.....	3
	1.4.1 Site Geology.....	3
	1.4.2 Local Groundwater Regime	4
2.0	MONITORING PROGRAM	5
2.1	Monitoring Points	5
	2.1.1 LFG Monitoring Points	5
2.2	Monitoring of Facility Structures	5
2.3	Monitoring and Reporting	5
	2.3.1 Frequency.....	5
	2.3.2 Personnel	5
	2.3.3 Equipment	6
	2.3.4 Procedures.....	6
	2.3.5 Precautionary Action Plan	7
	2.3.6 Record Keeping.....	8
2.4	Maintenance	8
3.0	CONTINGENCY PLAN	9
3.1	Immediate Action Plan	9
	3.1.1 Reporting and Documentation.....	9
3.2	Remediation Plan	9

FIGURE

- Figure 1 Site Vicinity Map
- Figure 2 Site Plan
- Figure 3 Flowchart of Methane Monitoring Requirements

APPENDIX

- Appendix A Reporting Form

This page intentionally left blank.

1.0 INTRODUCTION

This Landfill Gas (LFG) Monitoring Plan (plan) was prepared by Smith Gardner, Inc. to describe the LFG monitoring program at the WI High Point C&D Landfill Facility (NC Solid Waste Permit 41-16), which is located on Riverdale Drive High Point, North Carolina. This facility includes an active C&D landfill. This plan describes the necessary procedures to satisfy applicable regulatory requirements (see **Section 1.1**) for landfill gas monitoring.

The Engineer has utilized the best available site data, practices, experience, and judgment to develop this plan. However, the plan may require modifications over time to accommodate changing landfill conditions, changing receptors in areas adjacent to and around the landfill, or other conditions that cannot be fully anticipated.

Uncontrolled migration of LFG (particularly methane (CH₄)) can result in, loss of life, injury, loss of property, vegetative damage, and intolerable odors. Landfill monitoring includes exposure to explosive gases. Monitoring personnel should be specifically trained in the management and response for situations such as fire or explosion and confined space entry and possess an awareness of changing conditions around the landfill.

Note that this plan does not address landfill gas collection and control, air quality, or other related landfill gas regulations or requirements which may be applicable to this site at present or in the future.

1.1 Regulatory Requirements – C&D Landfills

Rule 15A NCAC 13B.0544(d) of the North Carolina Solid Waste Management Rules requires the following for facilities having a C&D landfill:

- Owners or operators of MSW landfill units must ensure that:
 - the concentration of methane gas or other explosive gases generated by the facility does not exceed 25 percent of the lower explosive limit in on-site facility structures (excluding gas control or recovery system components);
 - the concentration of methane gas or other explosive gases does not exceed the lower explosive limit for methane or other explosive gases at the facility property boundary; and
 - the facility does not release methane gas or other explosive gases in any concentration that can be detected in offsite structures.
- Owners or operators of C&D landfill units must implement a routine methane monitoring program and perform monitoring on at least a quarterly basis.
- If regulatory limits for methane gas concentrations are exceeded, a contingency plan must be implemented for the protection of human health and safety.

1.2 Guidance Document

This plan was developed generally following the Landfill Gas Monitoring Guidance document prepared by the North Carolina Department of Environment and Natural Resources (NC DENR), Division of Waste Management (DWM)¹.

1.3 Contact Information

All correspondence and questions concerning the operation of the WI High Point, LLC facility should be directed to the appropriate Operator and State personnel listed below. WI High Point, LLC is a wholly owned subsidiary of Waste Industries USA, Inc. For fire or police emergencies, dial 911.

1.3.1 WI High Point, LLC

Address: 5830 Riverdale Drive
High Point, North Carolina 27282
Scale House Phone: (336) 886-3560
Fax: (336) 886-7496
General Manager: Roger Marcum
Email: roger.marcum@wasteindustries.com
Phone: (336) 668-3712

1.3.2 Waste Industries USA, Inc.

Address: 3301 Benson Drive, Suite 600
Raleigh, North Carolina 27609
Region Manager: Brent Kirchhoff
Email: brent.kirchhoff@wasteindustries.com
Phone: (919) 877-2228
Fax: (919) 557-9523

1.3.3 North Carolina Department of Environment and Natural Resources

North Carolina DENR - Raleigh Central Office (RCO)
217 West Jones Street
1646 Mail Service Center
Raleigh, North Carolina 27699-1646
Phone: (919) 707-8200
Fax: (919) 707-8200

¹ NC DENR DWM (2010), "Landfill Gas Monitoring Guidance", NC DENR DWM Solid Waste Section, November 2010.

North Carolina DENR – Winston-Salem Regional Office

585 Waughtown Street
Winston-Salem, North Carolina 27107
Phone: (336) 771-5000
Fax: (336) 771-4630

Division of Waste Management (DWM) - Solid Waste Section:

Field Operations Branch Head: Mark Poindexter (RCO)
Email: mark.poindexter@ncdenr.gov
Western District Supervisor: Jason Watkins (WSRO)
Email: jason.watkins@ncdenr.gov
Environmental Senior Specialist: Hugh Jernigan (WSRO)
Email: hugh.jernigan@ncdenr.gov

Division of Energy, Mineral and Land Resources- Land Quality Section

Address: North Carolina DENR – Winston-Salem Regional Office (WSRO)
585 Waughtown Street
Winston-Salem, North Carolina 27107
Phone: (336) 771-5000
Fax: (336) 771-4630
Regional Engineer: Matthew Gantt, P.E. (WSRO)
Email: matthew.gantt@ncdenr.gov
Environmental Engineer I: Shannon Leonard (WSRO)
Email: Shannon.Leonard@ncdenr.gov

1.4 Existing Site Conditions

The WI High Point C&D landfill (Permit 41-16), is located at 5830 Riverdale Drive. Jamestown, NC. The approximately 158 acre facility is located approximately 6 miles east of High Point, in Guilford Owner. Area development is a mix of agricultural, industrial/ commercial and landfill use. In general, development in the area is primarily along the main roads. The site and surrounding area are shown on **Figure 1**.

1.4.1 Site Geology

The WI High Point C&D Landfill is located within the Piedmont Physiographic Province of North Carolina, which is characterized by moderately rolling valleys and ridges. The Geologic Map of North Carolina (*USGS, 1985*) indicates that the site lies within the Carolina Slate Belt; Late Proterozoic to Cambrian age volcanic and sedimentary rock metamorphosed to lower greenschist facies with multiple intrusions. The site is underlain by white to gray, fine to coarse grained, granitic rock. Diabase dikes are present in the area.

1.4.2 Local Groundwater Regime

The hydrogeology at this site has been investigated using, groundwater monitoring wells and aquifer slug tests. Groundwater flows primarily southwest, towards Richland Creek and its tributaries, with additional flow south and west. Richland Creek is approximately 1300 feet from the facility boundary and flows into Deep River. The uppermost aquifer is saprolite, partially weathered rock (PWR) along with granitic bedrock. Groundwater occurs from approximately ten feet below grade or less in the downgradient wells near the Richland Creek tributaries to twenty-five feet below grade upgradient of the waste area. Locally, the C&D site is bounded Richland Creek and its tributaries to the west and south.

2.0 MONITORING PROGRAM

Currently landfill gas at the site is monitored quarterly by advancing bar-hole punches at each landfill monitoring point location. Bar-hole punch technology is used, rather than permanent monitoring wells, due to the shallow nature of groundwater and bedrock at the site. The plan contained herein includes the continued program for advancement of bar-hole punch locations to monitor for subsurface landfill gas migration. The plan also includes landfill gas monitoring in on-site structures.

2.1 Monitoring Points

Existing monitoring locations are shown on **Figure 2**. No additional monitoring locations are proposed at this time.

2.1.1 LFG Monitoring Points

The close location of streams to the northwest, southwest and east of the site limit the possibility of landfill gas migration in these directions. Therefore, landfill gas monitoring points are focused along the northern and eastern property line where residential development is more predominant. The existing landfill gas monitoring locations include BH-1 through BH-5. These are bar-hole punch locations that have been monitored quarterly at the site.

2.2 Monitoring of Facility Structures

The following facility structures will be monitored:

- Scalehouse; and
- Maintenance Building.

If desired by the Owner, a dedicated methane monitor may be installed within one or more of these structures. Otherwise, monitoring will be conducted quarterly with the landfill gas monitoring points.

2.3 Monitoring and Reporting

Monitoring and reporting of LFG concentrations will be performed as outlined below.

2.3.1 Frequency

Routine LFG monitoring will be conducted on a quarterly basis.

2.3.2 Personnel

LFG monitoring will be performed by personnel who are familiar with the requirements of this plan and who are trained in LFG hazards and explosive gas meter use. As practical, a designated technician will be assigned to regular LFG monitoring duty.

2.3.3 Equipment

A Landtec™ GEM-2000 infrared portable gas analyzer (or equivalent) will be used to monitor probes and LFGCCS components. This analyzer, which is calibrated to methane (CH₄), operates using the infrared spectral property of methane to measure concentrations in air. Measurements of oxygen (O₂) and carbon dioxide (CO₂) will also be made with this meter. This meter may be used in oxygen deficient areas (less than 10% O₂) since oxygen is not required for a chemical combustion of flammable gases within the meter.

On the day of monitoring, prior to monitoring activities, this meter will be field calibrated. Additionally, all monitoring equipment should be regularly calibrated in accordance with manufacturer's specifications and operated only as instructed.

2.3.4 Procedures

Prior to each monitoring event, the portable gas analyzer will be calibrated with a known calibration standard in accordance with manufacturer's recommendations. General information related to the monitoring event, equipment used, calibration procedures, weather conditions, and results for each monitoring event will be recorded on the landfill gas monitoring data form (see **Appendix A**). A flowchart of monitoring requirements is included as **Figure 3**.

The following steps outline the procedure for the monitoring of LFG points and facility structures:

- Check calibration date on the meter and calibrate according to manufacturer's instructions; allowing equipment to warm up properly prior to use, per manufacturer's direction.
- Purge sample tube for one minute before monitoring.

LFG Monitoring Points:

- Connect instrument tubing to sample port on the monitoring well without removing the cap.
- Open the valve and record both the initial and stabilized methane concentrations. A stabilized concentration will not vary more than 0.5 percent by volume on the instrument's scale. Also record the oxygen concentration (at two percent per volume or less to

indicate air is not being drawn into the system and providing false readings) and the carbon dioxide concentration.

- Close the valve and disconnect the tubing.
- Record monitoring data on the LFG monitoring data form provided in **Appendix A**.
- If any methane concentration is **greater than 50% of the LEL (2.5% CH₄)**, monitoring personnel should implement the Precautionary Action Plan (see **Section 2.3.5**).
- If both initial and stabilized methane concentrations are less than 50% of the LEL (2.5% CH₄), move to next LFG monitoring well.

Structures:

- Walk through the facility structure with a methane analyzer and monitor the perimeter wall interface of the structure, the floor to wall interface in hallways and rooms, and any floor penetrations in the structure. Record the initial and stabilized methane concentrations, oxygen concentration, and carbon dioxide concentration.
- Record monitoring data on the LFG monitoring data form provided in **Appendix A**.
- Notify the Landfill Superintendent and the Engineer for any methane concentration greater than 0% of the LEL.

IF A STABILIZED METHANE CONCENTRATION IS GREATER THAN 100% OF THE LEL IN A LFG MONITORING WELL OR GREATER THAN 25% OF THE LEL IN A FACILITY STRUCTURE, THE FOLLOWING ACTIONS WILL BE IMPLEMENTED:

- 1) Recalibrate monitoring equipment and confirm results.
- 2) If results are confirmed, **IMMEDIATELY** contact the Landfill Manager and the Engineer.
- 3) Implement the Compliance Action Plan located in **Section 3.1**.

A flowchart of actions to be taken if exceedances are noted is included as **Figure 3**.

2.3.5 Precautionary Action Plan

If an initial or stabilized methane concentration is equal to or greater than 50% of the LEL in a LFG monitoring well, monitoring personnel should perform the following additional steps at this location:

- Measure gas pressure in the well head (in inches of water) using magnehelic gauge or other appropriate metering device.

- Record at least one additional methane concentration measurement, inside the well just below the top of casing.
- Evaluate the surrounding area for potential receptors to or signs of LFG migration. LFG can stress vegetation and can kill trees and grass by root asphyxiation. Note stressed/dead vegetation areas on the monitoring form.
- Notify the Landfill Manager and the Engineer for further evaluation.

2.3.6 Record Keeping

Routine LFG monitoring events will be documented on the LFG monitoring data form provided in **Appendix A**. Completed forms will be placed in the landfill operating record located at 103 E. Ivey Street Lillington, North Carolina 27546. These forms will be available for review by DWM personnel on request.

Documentation of any contingency plan actions (see **Section 3.0**) will also be kept in the operating record.

2.4 Maintenance

Periodic maintenance and site observations will be conducted routinely to address monitoring program components (at a minimum):

- Maintain access to LFG monitoring locations.
- Perform LFG monitoring well maintenance (maintain well locks, steel casing, concrete pad, etc.).
- Observe landfill cover conditions, areas of dead vegetation, leachate seeps, odors, etc. as indications of potential LFG-related problems.

Note deficiencies on the monitoring forms and report to the Solid Waste Operations Manager for repair or replacement as necessary.

3.0 CONTINGENCY PLAN

If a stabilized methane concentration is **greater than 100% of the LEL in a LFG monitoring well or greater than 25% of the LEL in a facility structure**, the Owner will perform both an immediate action and plan and a remediation plan as described below.

3.1 Immediate Action Plan

The Solid Waste Operations Manager will perform the following actions for the protection of human health and safety:

- 1) Evacuate affected facility structures and the immediately surrounding area.
- 2) Determine nearby potential receptors (facility and off-site structures).
- 3) Perform monitoring in any other facility structure near the monitoring location having the high concentration.
- 4) Contact the Owner Fire Department (911). Coordinate evaluation of potentially affected off-site structures with the Fire Department.
- 5) Verbally notify the Owner Engineer, or their designee.
- 6) Verbally notify the NCDENR DWM (see **Section 1.1**) as soon as practical.
- 7) Investigate and identify the potential source(s) and conduit(s) for LFG migration that may have caused the high concentration (i.e. the path that the LFG may be taking to the monitoring location).
- 8) Identify the LFG extent using bar hole punch sampling methodology or other applicable alternative method as practical.
- 9) As appropriate, begin corrective action to control methane concentrations in structures surrounding the landfill site.

3.1.1 Reporting and Documentation

Within seven days of the detection of a high methane concentration, the Owner will prepare and submit an Environmental Monitoring Reporting Form (see **Appendix A**) with the results of the monitoring event to the DWM. The Owner will also place a description of the actions performed to protect human health in the operating record.

3.2 Remediation Plan

Within sixty days of the detection of a high methane concentration, a remediation plan describing the problem nature, extent, and proposed remedy will be submitted to NCDENR for approval. Upon approval the plan will be implemented and a copy will be placed in the operating record. The DWM will also be notified the plan has been implemented.

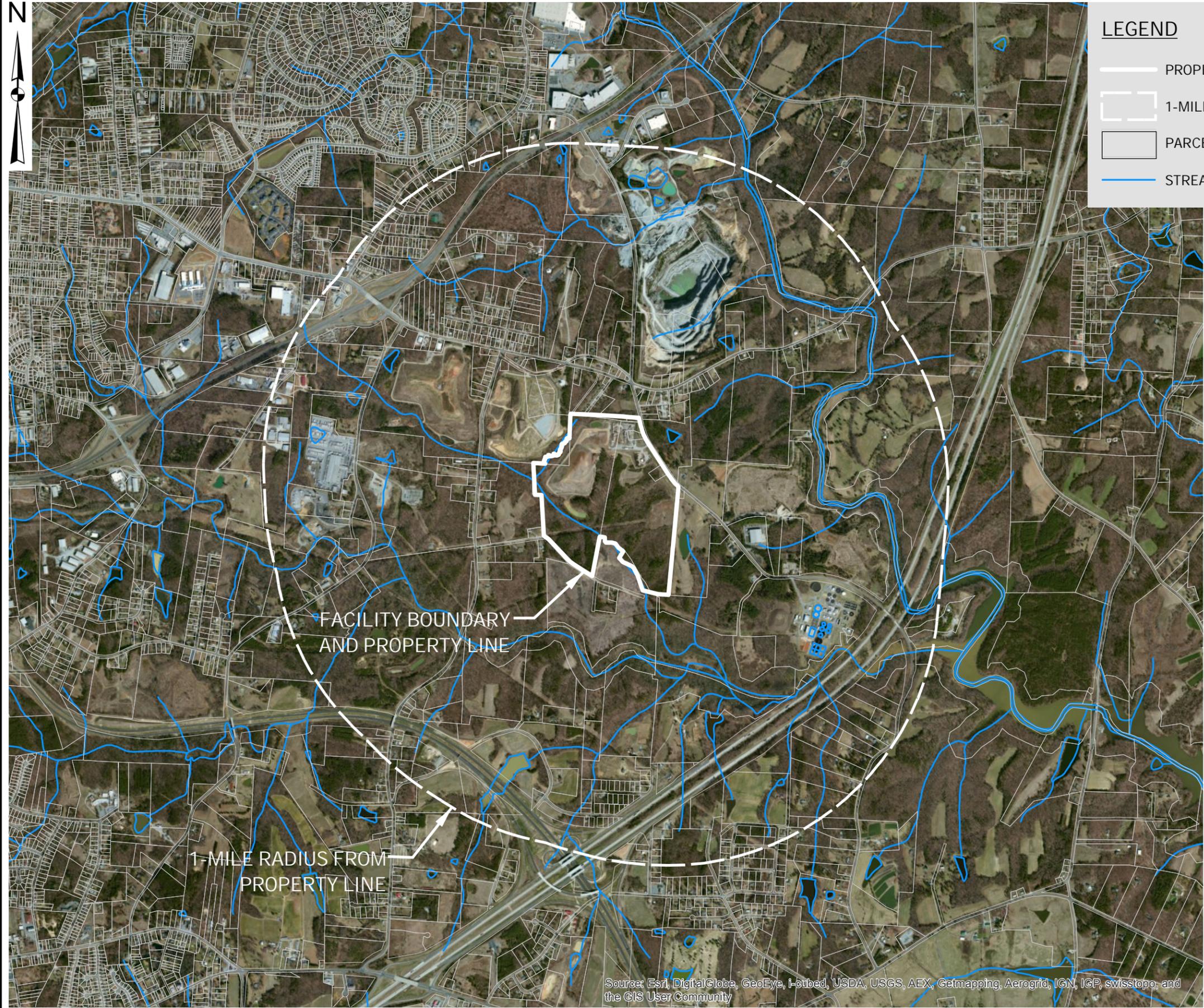
An extension may be granted by the DWM on written request and depending on severity of the situation.

This page intentionally left blank.

Figures

**Landfill Gas Monitoring Plan
WI High Point C&D Landfill
High Point, NC**

This page intentionally left blank.



LEGEND

-  PROPERTY BOUNDARY
-  1-MILE RADIUS FROM PROPERTY BOUNDARY
-  PARCEL BOUNDARY (SEE REFERENCE 1)
-  STREAM LOCATION (SEE REFERENCE 2)

FACILITY BOUNDARY
AND PROPERTY LINE

1-MILE RADIUS FROM
PROPERTY LINE

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

REFERENCES:

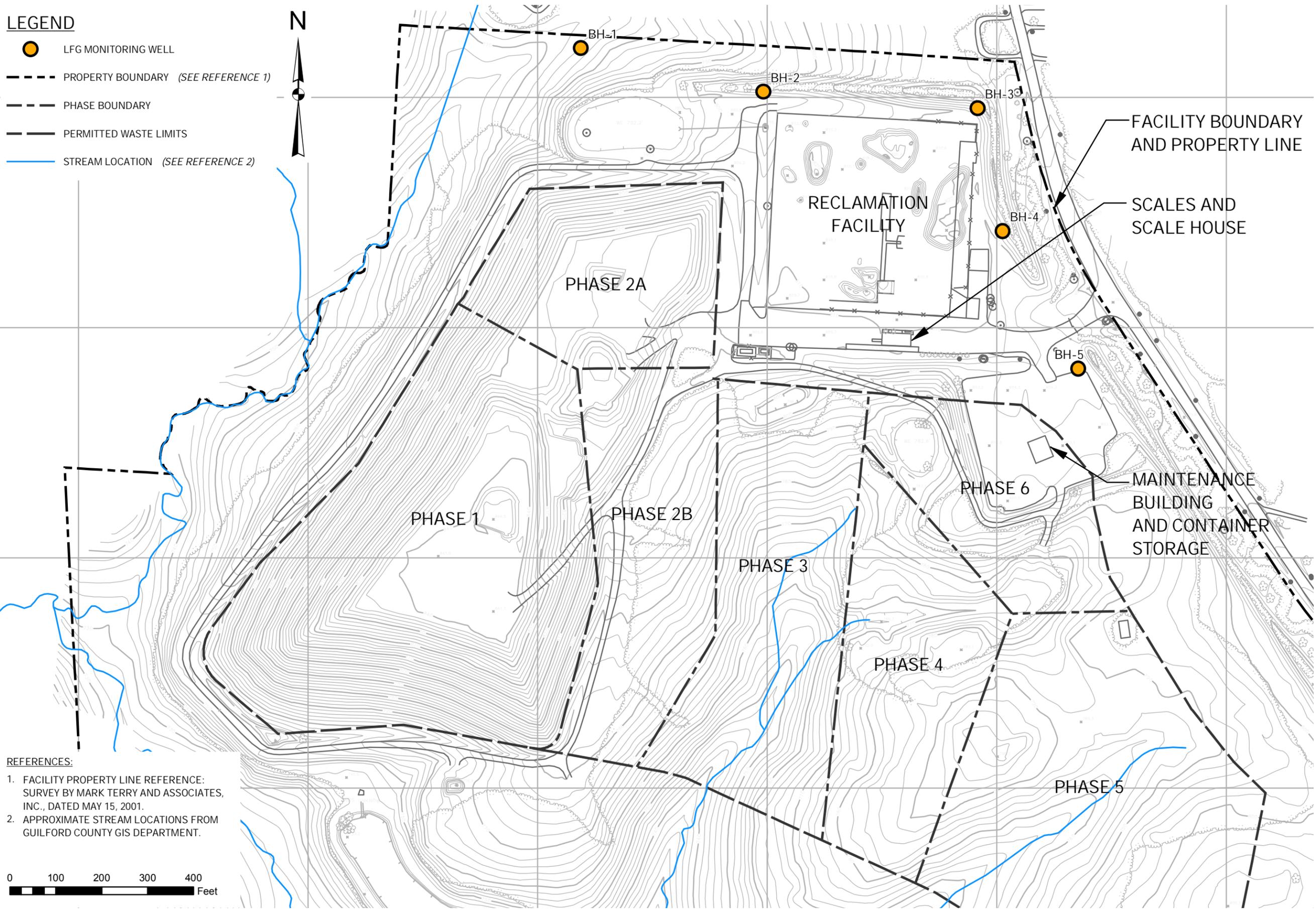
1. PARCEL BOUNDARIES FROM GUILFORD COUNTY GIS DEPARTMENT. PARCEL INFORMATION DATED JUNE, 2009
2. STREAM AND WATER FEATURES FROM U.S.G.S. 7.5 MIN. QUADRANGLE "HIGH POINT EAST, NC".



**WI HIGH POINT LANDFILL, LLC
HIGH POINT C&D LANDFILL
SITE VICINITY MAP**

LEGEND

-  LFG MONITORING WELL
-  PROPERTY BOUNDARY (SEE REFERENCE 1)
-  PHASE BOUNDARY
-  PERMITTED WASTE LIMITS
-  STREAM LOCATION (SEE REFERENCE 2)



REFERENCES:

1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.
2. APPROXIMATE STREAM LOCATIONS FROM GUILFORD COUNTY GIS DEPARTMENT.



FIGURE NO:

2

SCALE:

AS SHOWN

APPROVED:

M.M.G.

DRAWN:

C.T.J.

PROJECT NO.:

WIHIGHPOINT 13-1

FILENAME:

WI-B0888

DATE:

Aug. 2013

WI HIGH POINT, LLC
HIGHPOINT C&D LANDFILL
LANDFILL GAS MONITORING NETWORK

MONITORING FREQUENCY IS QUARTERLY

METHANE CONCENTRATION MUST NOT EXCEED:
1. 25% OF THE LEL IN FACILITY STRUCTURES; AND
2. 100% OF THE LEL AT THE FACILITY PROPERTY BOUNDARY.

IF METHANE CONCENTRATION EXCEEDS EITHER OF THE ABOVE, THE OWNER MUST:

RECALIBRATE METER AND CONFIRM READINGS
(SEE SECTION 2.3.4 OF LFG MANAGEMENT PLAN)

IF CONFIRMED READINGS EXCEED LIMITS,
(SEE SECTION 3.0 OF THE LFG MANAGEMENT PLAN) AND:

1. IMMEDIATELY:
TAKE STEPS TO ENSURE PROTECTION OF HUMAN HEALTH AND SAFETY

2. WITHIN 7 DAYS:
PLACE THE METHANE READINGS AND STEPS TAKEN TO PROTECT HUMAN HEALTH IN THE OPERATING RECORD

3. WITHIN 60 DAYS:
PREPARE A REMEDIATION PLAN. SUBMIT PLAN TO NCDENR FOR APPROVAL. UPON APPROVAL, IMPLEMENT PLAN.

SMITH+GARDNER ENGINEERS NOTIFY THE ENGINEER AND DIVISION WITHIN 24 HOURS 

PLACE A COPY OF THE REMEDIATION PLAN IN THE OPERATING RECORD, AND

EVALUATE THE NEED FOR ADDITIONAL MONITORING

NOTIFY THE DIVISION THAT THE PLAN HAS BEEN IMPLEMENTED

PREPARED FOR:
FLOWCHART OF METHANE MONITORING REQUIREMENTS
WI HIGH POINT LANDFILL, LLC
HIGH POINT C&D LANDFILL

PREPARED BY: _____ NC LIC. NO. C-0828 [ENGINEERING]
SMITH+GARDNER
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

DRAWN: C.T.J.	APPROVED: J.A.S.	SCALE: N.T.S.	DATE: Aug 2013	PROJECT NO.: WIHIGHPOINT 13-6	FIGURE NO.: 3	FILE NAME: WI-A0889
------------------	---------------------	------------------	-------------------	----------------------------------	------------------	------------------------

G:\CAD\WCA High Point\WIHIGHPOINT 13-6\sheets\WI-A0889.dwg - 8/20/2013 11:29 AM

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A

Reporting Forms

**Landfill Gas Monitoring Plan
WI High Point C&D Landfill
High Point, NC**

This page intentionally left blank

NC Division of Waste Management - Solid Waste Section

Landfill Gas Monitoring Data Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Facility Name: _____ Permit Number: _____

Date of Sampling: _____ NC Landfill Rule (.0500 or .1600): _____

Name and Position of Sample Collector: _____

Type and Serial Number of Gas Meter: _____ Calibration Date of Gas Meter: _____

Date and Time of Field Calibration: _____

Type of Field Calibration Gas (15/15 or 35/50): _____ Expiration Date of Field Calibration Gas Canister: _____

Pump Rate of Gas Meter: _____

Ambient Air Temperature: _____ Barometric Pressure: _____ General Weather Conditions: _____

Instructions: Under "Location or LFG Well" identify the monitoring wells or describe the location for other tests (e.g., inside buildings). A drawing showing the location of test must be attached. Report methane readings in both % LEL and % methane by volume. A reading in percent methane by volume can be converted to % LEL as follows: % methane by volume = % LEL/20

Location or LFG Well ID	Sample Tube Purge	Time	Time Pumped (s)	Initial %LEL	Stabilized %LEL	%CH4 by Volume	%O2	%CO2	Notes

If your facility has more gas monitoring locations than there is room on this form, please attach additional sheets listing the same information as contained on this form.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

SIGNATURE

TITLE

DENR USE ONLY:

Paper Report

Electronic Data - Email CD (data loaded: Yes / No)

Doc/Event #:

NC DENR

Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: _____ Phone: _____

E-mail: _____

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)

Environmental Status: (Check all that apply)

Initial/Background Monitoring
 Detection Monitoring
 Assessment Monitoring
 Corrective Action

Type of data submitted: (Check all that apply)

Groundwater monitoring data from monitoring wells
 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells
 Corrective action data (specify) _____
 Leachate monitoring data
 Other(specify) _____
 Surface water monitoring data

Notification attached?

- No. No groundwater or surface water standards were exceeded.
 Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
 Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Affix NC Licensed/ Professional Geologist Seal

Signature

Date

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)