JOYCE ENGINEERING

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July 22, 2013

Mr. Ervin Lane
Compliance Hydrogeologist
Division of Waste Management/Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

RE: Wilkes County Germantown Landfill, Permit Number 97-01
Third Quarterly Gas Monitoring Results of 2013
JOYCE Project No. 356.1201.12, Task No. 04

Dear Kent:

Attached to this letter is the landfill gas monitoring log from the July 22, 2013, third quarterly monitoring event at the Wilkes County Germantown Landfill, Permit Number 97-01. During this event, Joyce Engineering (JOYCE) monitored three gas probes and three on-site structures for the presence of landfill gas. Methane was detected above the lower explosive limit (LEL) in gas probe GP-1. A bar-hole probe for GP-1 (BH-1A) was used 50 ft. towards the boundary in which no methane was detected. No methane was detected in GP-2, GP-4 or any structures during this monitoring event. A copy of the monitoring results will be placed in the records for this facility. If we can provide any additional information, please call me or Larry Hineline at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING

Adam Cox

Adam Cox
Field Consultant

Attachments: Landfill Gas Monitoring Log

C: Kent Brandon, Solid Waste Director

Landfill Gas Monitoring Data Form

Facility Name:	Germantown Closed Landfill	Permit Number:	Permit Number:	97-01
Date of Sampling:	07/22/13	Personnel:	Personnel:	A. Cox
Gas Monitor Type & Serial Number:	RKI GX-2003	Calibration Date:	Calibration Date:	01/30/13
Field Calibration Date & Time:	7/22/2013 1150	Calibration Gas Type:	Calibration Gas Type:	2.5% CH4, exp. 5-2013
General Weather Conditions:	P. Cloudy 80's	Barometer :	Barometer :	29.99 In-Hg

Location or LFG Well ID	Instr. purged	Time	Probe Pressure (InWg)	Time Pumped (sec.)	CH_4 (%Vol)	CH_4 (%LEL)	Limit (%LEL)	Notes
BP-1	Y	1204	0.000	30	41.0	820.0	100.0	Bar-hole 50ft towards boundary, no detections
BP-2	Y	1154	0.000	30	0.0	0.0	100.0	
BP-4	Y	1225	0.140	30	0.0	0.0	100.0	
BH-1A	Y	1206	NA	30	0.0	0.0	100.0	
Barn	Y	1253	-	Continuous	0.0	0.0	25.0	
Garage	Y	1247	-	Continuous	0.0	0.0	25.0	
Office	Y	1239	-	Continuous	0.0	0.0	25.0	

Abbreviations: LEL= Lower Explosive Limit
BP = Boundary Probe
BH = Bar-hole

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):

Joyce Engineering

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

Name: Larry Hineline, P.G. Phone: (336) 323-0092

E-mail: lhineline@joyceengineering.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Germantown Landfill Wilkes County	Mailing Address: 9219 Elkin Highway Roaring River, NC 28669	97-01	.0500	July 22, 2013

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

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.

Larry Hineline, P.G. | Technical Consultant | (336) 323-0092

Facility Representative Name (Print) | Title | (Area Code) Telephone Number

Signature | Date: 7/24/13

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 2357 GEOLOGIST T. LAWRENCE HINELINE

2211 West Meadowview Rd. Suite 101, Greensboro, NC 27407

Facility Representative Address

C-0782

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

Revised 6/2009