

May 24, 2013

Ms. Jaclynne Drummond
NCDENR DWM Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

RE: **Operations, Monitoring, and Maintenance Report – April 2013**
Avery County Closed MSW Landfill
Spruce Pine, North Carolina

Dear Ms. Drummond:

This report provides information concerning the operation and maintenance (O&M) of the Avery County Closed MSW Landfill (Permit No. 06-01) Landfill Gas Collection and Control System (LFGCCS) as well as monitoring of the landfill gas probes located both on- and off-site. This report covers the April 2013 monitoring period. Mr. Don Misenheimer with Smith Gardner, Inc. (S+G) performed three (3) site visits during April 2013. Details of these site visits are provided below.

ACTION LIST

S+G previously identified the following items to be addressed in order for the LFGCCS to operate as designed:

1. **LFGCCS System:** An expansion of the LFGCCS system, as proposed in the *Annual Landfill Gas Monitoring Report*¹, has been approved² by the division of Waste Management. Phase One of the expansion project consisted of:
 - installation of two (2) landfill gas extraction wells that are four inches in diameter on the northern portion of the property between current landfill gas extraction wells W1 and W3 and the limits of waste near Brushy Creek Road (**completed**);
 - connection of the two new wells to the existing landfill gas collection system (**completed**);
 - installation of an isolation valve along the landfill gas header to isolate the southern landfill gas extraction wells (**approved for completion, see additional comments below**); and
 - installation of a flare collar extension (**completed**);

2. **Blower:** The blower was not operational and required replacement (**completed**).

¹ *Annual Landfill Gas Monitoring Report*, Closed Avery County MSW Landfill. Submitted by Smith Gardner, November 2012.

² Approval response letter, Closed Avery County MSW Landfill (Annual Landfill Gas Monitoring Report). Sent by Jaclynne Drummond, Solid Waste Section, November 15, 2012.

3. **Monitoring:** Monthly monitoring will continue at the site.

LFGCCS IMPROVEMENT ACTIVITIES

S+G personnel performed three site-visits in April (April 8th, April 22, and April 30th) to complete Phase One of the system expansion project and new blower installation. A report summarizing LFGCCS expansion activities will be submitted under separate cover. The LFGCCS was re-started and has been running from April 30, 2013 to the present. The following actions were taken at the well field and flare station during these visits:

LFG Extraction Well Field

- **W-9 and W-10:** Two (2) new extraction wells were installed by Geologic Explorations, Inc, (GEI) on April 8, 2013. These wells were installed to a depth of 35 feet below grade under the supervision of S+G personnel. On April 22-25, Piedmont Industrial Services (PIS) connected these wells to the existing system header pipe and installed a new blower for the system. On April 30, 2013, S+G personnel installed new extraction wellheads on W-9 and W-10. **A well installation report will be submitted under separate cover.**
- **W-1 through W-10:** During April 22-25, 2013, PIS replaced all connections from the system laterals to LFG extraction wells W1-W-8. Subsequently, PIS performed a low-pressure air test across the entire system and confirmed that no air leaks were present.
- **Isolation Valve Installation:** During April 22-25, PIS was planning to install the proposed isolation valve. During the excavation of the header at the proposed valve installation location, it was determined that the header pipe in this area is 6-inch diameter and is larger than the valve that was ordered. Due to the entire system passing the low-pressure air test, **it is our opinion that the installation of the isolation valve is not necessary at this time.**

Flare Station

- **Blower Installation:** Between April 22-25, 2013, PIS installed a new blower to replace the damaged, non-operational unit. This blower is the same make and model that has been present on-site for the life of the system.
- **Filter Tank Installation:** PIS also installed a filter tank at the flare station during the April 22-25 site visit. The filter tank was installed between the sump and the blower and should eliminate the likelihood of solids entering the blower and causing damage. This filter tank is equipped with a site window to monitor any liquid accumulation. **S+G will continue to monitor the liquid level of the filter tank.**

- **Condensate Tank:** The condensate tank was observed during this site visit; the liquid was at an acceptable level. **S+G will continue to monitor the liquid level of the condensate tank.**

LFG MONITORING WELL (PERIMETER) MONITORING

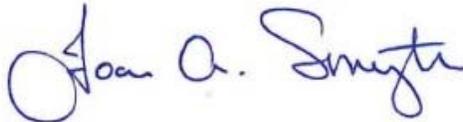
S+G personnel also performed monitoring of the perimeter LFG monitoring network. Monitoring wells P1, P3, P7 and P11 each measured over the 100% LEL or 5% by volume of CH₄. All other wells had no detectable concentrations of CH₄. Results of this monitoring event are included in **Attachment 1**. These wells will continue to be monitored and data will be submitted in this reporting format.

The next routine monitoring event is scheduled for May 2013. If you have any questions, or require additional information, please contact us at your earliest convenience at 919-828-0577 or by e-mail (address below).

Sincerely,
SMITH GARDNER, INC.



Don Misenheimer
Project Scientist, ext. 224
don@rsgengineers.com



Joan A. Smyth, P.G.
Senior Hydrogeologist ext. 221
joan@rsgengineers.com

Attachments

CC: Buddy Norris – Avery County
Deb Aja – NCDENR
Stacey Smith, P.E. – S+G
File

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FIGURE

**Operations Monitoring and Maintenance Report - LFGCCS
Avery County Closed MSW Landfill
Permit No. 06-91**

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LEGEND

- EXISTING LANDFILL GAS PROBE
- ④ OFFSITE STRUCTURE TO BE MONITORED

REFERENCES

1. ADJACENT PROPERTIES ARE FROM AVERY COUNTY GIS MAPPING DEPARTMENT.
2. MONITORING WELL LOCATIONS FROM FIELD SURVEY DATED 1/14/08, BY SURVEYING SOLUTIONS, P.C.
3. PROPERTY LINE FROM FIELD SURVEY DATED APRIL 9, 2010, BY APPALACHIAN PROFESSIONAL LAND SURVEYORS & CONSULTANTS.
4. LFG PROBES LOCATIONS FROM FIELD SURVEY DATED APRIL 9, 2010, BY APPALACHIAN PROFESSIONAL LAND SURVEYORS & CONSULTANTS. PROBE P-2, P-3, AND P-9 THROUGH P-13 LOCATIONS WERE NOT SURVEYED AND ARE APPROXIMATE.

PREPARED BY: _____ NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER
14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

DRAWN: W.R.B.	APPROVED: D.M.M.	SCALE: AS SHOWN	FIGURE NO: 1
DATE: Oct 2012	PROJECT NO: AVERY 12-6	FILENAME: AVERY-B0192	

**LANDFILL GAS MONITORING SYSTEM
AVERY COUNTY CLOSED MSWLF
SPRUCE PINE, NORTH CAROLINA**

PREPARED FOR: _____

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Attachment 1

**Operations, Monitoring and Maintenance Report - LFGCCS
Avery County Closed MSW Landfill
Permit No. 06-91**

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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: Avery County Closed MSW Landfill Permit Number: 06-01

Date of Sampling: 4.22.13 NC Landfill Rule (.0500 or .1600): .0500

Name and Position of Sample Collector: DON MISENHEIMER

Type and Serial Number of Gas Meter: LEM 2000 07002 HP Calibration Date of Gas Meter: 2.1.13

Date and Time of Field Calibration: 4.22.13 6:30a

Type of Field Calibration Gas (15/15 or 35/50): 15/15 Expiration Date of Field Calibration Gas Canister: 11-2014

Pump Rate of Gas Meter: 0.5 l/min

Ambient Air Temperature: 65° Barometric Pressure: 29.70 General Weather Conditions: Sunny

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
P1	760s	6:33a	760s	7100	7100	36.7	8.1	13.4	
P2	760s	6:35a	760s	0	0	0	17.7	0.3	
P3	760s	6:37a	760s	7100	7100	59.9	1.3	21.9	
P4	760s	6:39a	760s	0	0	0	15.9	2.2	
P5	760s	6:45a	760s	0	0	0	16.4	0.4	
P6	760s	6:49a	760s	0	0	0	17.2	1.1	
P7	760s	6:56a	760s	7100	7100	31.4	10.4	3.8	
P8	760s	6:58a	760s	0	0	0	16.5	1.7	
P9	760s	7:15a	760s	0	0	0	16.7	2.1	
P10	760s	7:21a	760s	0	0	0	15.0	3.2	

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]
SIGNATURE

PROJECT SCIENTIST
TITLE

NC Division of Waste Management - Solid Waste Section

Landfill Gas Monitoring Data Form

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: [SEE PAGE 1]

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
P11	760s	7:25a	760s	7100	7100	59.9	1.2	21.1	
P12	760s	7:02a	760s	0	0	0	16.9	1.7	
P13	760s	7:35a	760s	0	0	0	6.0	6.9	

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[Signature]
SIGNATURE

PROJECT SCIENTIST
TITLE

NC Division of Waste Management - Solid Waste Section

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: _____
 Type and Serial Number of Gas Meter: [SEE PAGE ONE] 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
AVERY COUNTY AIRPORT STRUCTURE #1									
NE Corner	760s	7:38	760s	0	0	0	20.2	0	
NW Corner	760s	7:40	760s	0	0	0	20.1	0	
SE Corner	760s	7:42	760s	0	0	0	20.2	0	
SW Corner	760s	7:44	760s	0	0	0	20.2	0.1	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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] SHG
 SIGNATURE TITLE PROJECT SCIENTIST

NC Division of Waste Management - Solid Waste Section

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: SEE PAGE 1

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
AVERY COUNTY AIRPORT STRUCTURE #2									
NE Corner	760s	7:46a	760s	0	0	0	20.1	0	
NW Corner	760s	7:48a	760s	0	0	0	20.0	0	
SE Corner	760s	7:50a	760s	0	0	0	20.2	0	
SW Corner	760s	7:52a	760s	0	0	0	20.1	0.2	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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.

Don Mc... ^{STG}
SIGNATURE

PROJECT SCIENTIST
TITLE

NC Division of Waste Management - Solid Waste Section

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: [SEE PAGE 1]

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
AVERY COUNTY AIRPORT STRUCTURE #3									
NE Corner	760s	7:54 _a	760s	0	0	0	20.0	0.1	
NW Corner	760s	7:56 _a	760s	0	0	0	20.1	0.2	
SE Corner	760s	7:58 _a	760s	0	0	0	20.1	0.1	
SW Corner	760s	8:00 _a	760s	0	0	0	20.1	0	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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 PROJECT SCIENTIST

NC Division of Waste Management - Solid Waste Section

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: [SEE PAGE 1]

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
AVERY COUNTY AIRPORT STRUCTURE #4									
NE Corner	760s	8:02a	760s	0	0	0	20.2	0.1	
NW Corner	760s	8:04a	760s	0	0	0	20.2	0	
SE Corner	760s	8:06a	760s	0	0	0	20.1	0.1	
SW Corner	760s	8:08a	760s	0	0	0	20.1	0.1	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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] (S/G)
 SIGNATURE PROJECT SCIENTIST
 TITLE

NC Division of Waste Management - Solid Waste Section

Landfill Gas Monitoring Data Form

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: _____

Type and Serial Number of Gas Meter: [SEE PAGE 1] 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
AVERY COUNTY AIRPORT STRUCTURE #5									
NE Corner	760s	8:15a	760s	0	0	0	20.0	0.1	
NW Corner	760s	8:17a	760s	0	0	0	20.1	0.1	
SE Corner	760s	8:19a	760s	0	0	0	20.1	0	
SW Corner	760s	8:21a	760s	0	0	0	20.2	0	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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] (SIC) _____
 SIGNATURE TITLE
PROSECI SCIENTIST

NC Division of Waste Management - Solid Waste Section

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Facility Name: Avery County Closed MSW Landfill Permit Number: 06-01

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

Name and Position of Sample Collector: [SEE PAGE 1]

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
AVERY COUNTY AIRPORT STRUCTURE #6									
NE Corner	7605	8:25a	7605	0	0	0	20.1	0.2	
NW Corner	7605	8:27a	7605	0	0	0	20.1	0.1	
SE Corner	7605	8:29a	7605	0	0	0	20.2	0.1	
SW Corner	7605	8:31a	7605	0	0	0	20.1	0.1	
ADD ANY ADDITIONAL LOCATIONS AT OR NEAR STRUCTURE WITH METHANE PRESENT BELOW OR ON ADDITIONAL SHEETS									

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] (5/10) _____
 SIGNATURE TITLE PROJECT SCIENTIST

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):

Smith Gardner, Inc.

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

Name: Joan A. Smyth, PG Phone: 919-828-0577 x 221

E-mail: joan@smithgardnerinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Avery County Closed MSW Landfill	Brushy Creek Road, Spruce Pine, NC	06-01	.0500	April 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
 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells
 Corrective action data (specify) LFG System Upfit
 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.

Joan A. Smyth, PG Senior Hydrogeologist 919-828-0577 x 221

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

Affix NC Licensed Professional Geologist Seal

Joan A. Smyth
Signature

5/24/13
Date

14 N. Boylan Ave, Raleigh, NC 27603

Facility Representative Address

CO828

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

Revised 6/2009

