



Henderson County Engineering

Solid Waste Division

100 N. King Street, Suite 210
Hendersonville, North Carolina 28792
(828) 694-6521 | www.hendersoncountync.org



#

September 27, 2013

Ms. Jaclynne Drummond
Compliance Hydrogeologist
North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646
Phone: 1-919-707-8294

RE: Methane Monitoring results – third quarterly event of 2013
Closed Henderson County Landfill, Permit No. 45-01
Henderson County, North Carolina

Dear Jaclynne,

Attached are the results from the September 20, 2013, third quarterly methane monitoring event conducted at the Henderson County Closed Landfill. This is the second methane gas monitoring event taken place since the landfill gas collection and monitoring system was removed April 2013 by Enerdyne. Henderson County Solid Waste currently has Golder Associates under contract to provide the Landfill gas remediation plan within the timeframe required. In the meantime, during each methane gas monitoring event, when exceedences are indicated, Henderson County will continue to report them within 7 days to this office.

If you refer to the attachment "Boundary Probe Monitoring Log" the same two compliance monitoring points (MP-5 and TR-3) have again had detections of methane noted above the lower explosive limit (LEL) during this event. No methane was detected in the facility structures during this compliance monitoring event.

On the previous report, Dusty noted that two compliance monitoring points (MP-2 and TR-2) were not located during the June 26, 2013 compliance monitoring event, these two monitoring points have been resolved. MP-2 was located where the new scale house was constructed during the major construction in 2011-2012. The new scale house now has a permanent monitoring device located inside the structure. TR-2 was damaged by a contractor during work, it has now been repaired. TR-2 was included in this monitoring event.

Please allow this letter report to act as the 7-day notification of methane exceedences as required by the North Carolina Solid Waste Management Regulations. As you know the exceedences are likely due to the recent shutdown of the active landfill gas system that was operated at the landfill by Enerdyne until April 2013. If you have any questions or concerns, please contact us at (828)-694-6521.

Sincerely,

Natalie J. Berry, PE
Henderson County Engineering Department
Solid Waste Division
Assistant County Engineer

ASSISTANT COUNTY ENGINEER OFFICE
HENDERSON COUNTY ENGINEERING - SOLID WASTE DIVISION
100 N. KING STREET, SUITE 210 ■ Phone: 828-694-6521

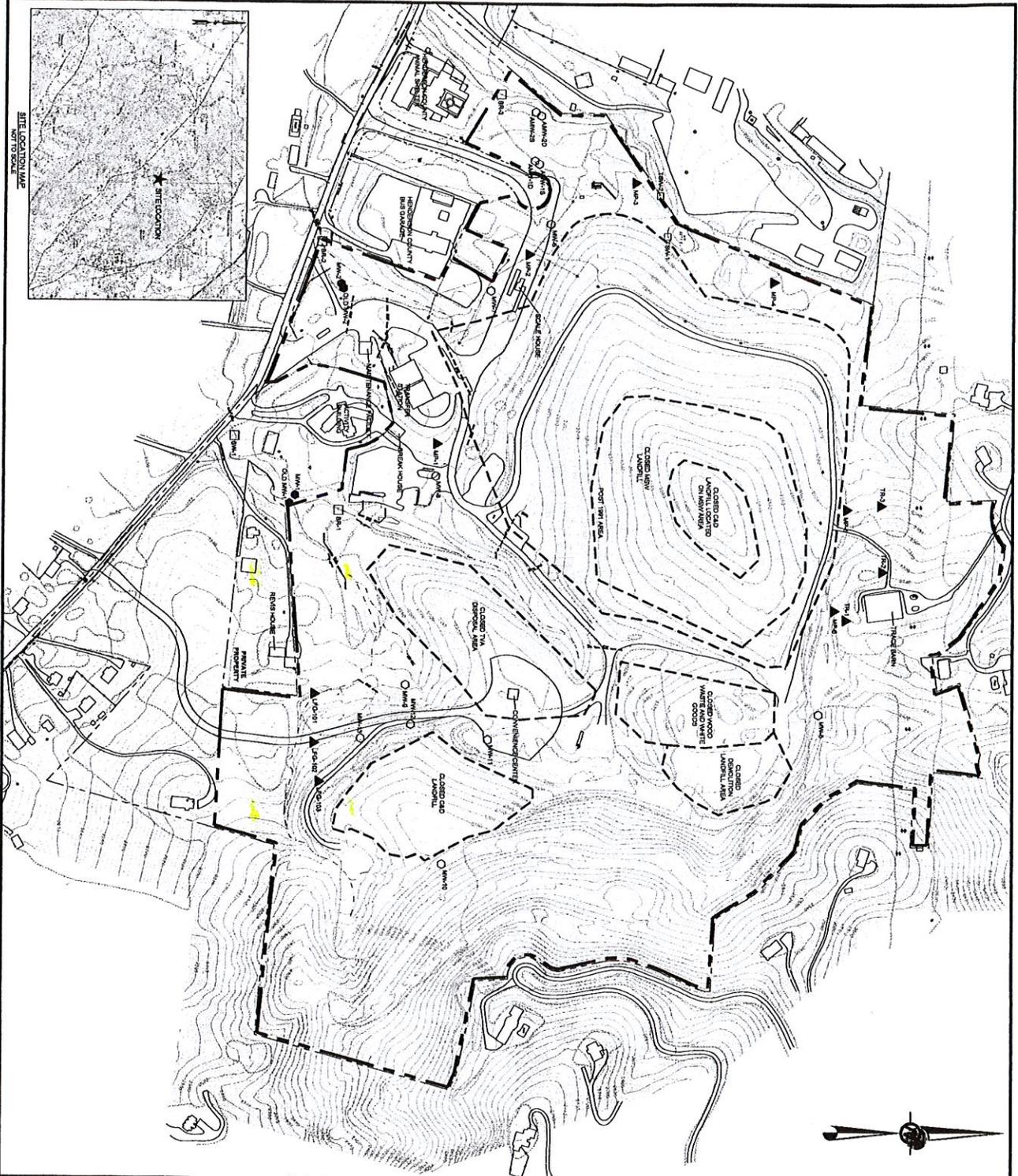
Attachments: Boundary Gas Probe Monitoring Log – September 20, 2013
Methane Monitoring Location Map (provided by Golder Associates)
Environmental Monitoring Reporting Form

cc: Marcus A. Jones PE, Director of Henderson County Engineering
Greg Wiggins, Manager of Henderson County Solid Waste Operations
Rachel Kirkman PG, Associate and Senior Geologist - Golder Associates
David "Dusty" Y. Reedy II, PG, Senior Project Hydrogeologist – Golder Associates

DATE: 9/20/2013**BOUNDARY PROBE MONITORING LOG**Project Name: Henderson County Closed LandfillDENR Permit Number: 45-01Site Contact: Greg Wiggins, ManagerTechnician(s): Natalie Berry and Greg WigginsHigh Temperature: 78°Low Temperature: 76°Starting Barometric Pressure: 27.71End Barometric Pressure: 27.78Monitoring Equipment: Gem Plus 2000

Monitoring Point	Time	% Methane (CH ₄)	% Carbon Dioxide (CO ₂)	% Oxygen (O ₂)	H ₂ S (ppm)	Comments
MP-1	11:27:00 AM	0.1	7.2	14.9	77.8	Located on the perimeter of the closed LF
MP-2	--	--	--	--	--	Well has been replaced with new Scalehouse permanent mounted CH ₄ detector
MP-3	11:48:00 AM	0.1	4.1	15.6	80.2	Located on the perimeter of the closed LF
MP-4	11:43:00 AM	0.3	18.2	5.0	76.5	Located on the perimeter of the closed LF
MP-5	11:53:00 AM	47.9	38.6	0.9	12.6	Located on the perimeter of the closed LF
MP-6	12:20:00 PM	0.7	1.6	17.2	80.5	Located on the perimeter of the closed LF
LFG-101	12:55:00 PM	0.2	4.2	13.6	82.0	Located at the entrance rd to cc
LFG-102	12:45:00 PM	0.2	4.9	12.9	82.0	Located at the entrance rd to cc
LFG-103	12:30:00 PM	0.1	8.5	10.7	80.7	Located at the entrance rd to cc
TR-1	12:05:00 PM	0.2	5.2	15.4	79.2	Trace Property
TR-2	12:06:00 PM	2.5	6.5	13.6	77.4	Trace Property
TR-3	12:09:00 PM	8.5	32.3	0.2	59.0	Trace Property
Activity Building	1:06:00 PM	0.2	0.0	19.9	79.9	Structures
Animal Shelter	1:23:00 PM	0.2	0.0	20.0	79.8	Structures
Break House	1:46:00 PM	0.2	0.0	20.0	79.8	Structures
Bus Garage	1:20:00 PM	0.2	0.0	20.0	79.8	Structures
Convenience Center	1:25:00 PM	0.0	0.0	20.3	79.7	Structures
Maintenance Shop	1:36:00 PM	0.2	0.0	20.0	79.8	Structures
Revis House	1:00:00 PM	0.0	0.0	20.5	79.5	Structures
Scalehouse	1:30:00 PM	0.2	0.0	20.0	79.8	Structures
Trace Barn	12:01:00 PM	0.4	0.3	20.0	79.3	Structures

Completed by: Natalie J. Berry PE, Assistant County Engineer



LEGEND

- 10 FT. CONTOUR
- 5 FT. CONTOUR
- MW-1 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
- MW-2 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
- MW-3 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
- MW-4 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
- MW-5 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
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- MW-10 NON COMPLIANCE MONITORING WELL AND IDENTIFICATION
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- ▲ MW-100 METHANE MONITORING POINT AND IDENTIFICATION

NOTES

1. TOPGRAPHIC CONTOUR INTERVAL - 1 FEET
2. COMPARATIVE ELEVATIONS: N.C. STATE PLAINS GRID
3. TOPGRAPHIC CONTOUR LINE SHOWS THE BOUNDARY CONTOURS FROM LANDFILL
4. TOPGRAPHIC CONTOUR INTERVAL TOPGRAPHIC CONTOURING WAS 1.5 CONTOUR INTERVAL

REFERENCES

1. BUREAU OF REVENUE & TAXATION: HENDERSON COUNTY WATER QUALITY MONITORING REPORT

SCALE

0 50 100 200 FEET

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK
1	11/27/23	ISSUE FOR PERMIT	ASB	MMK
2	01/27/24	REVISIONS	ASB	MMK
3	02/01/24	REVISIONS	ASB	MMK

PROJECT INFORMATION

PROJECT NO. 23-245003
 CLIENT: HENDERSON COUNTY
 DATE: 11/27/23
 SCALE: AS SHOWN
 SHEET: 1 OF 1
 DWG. 1

COMPANY INFORMATION

Golder Associates
 GOLDEN ASSOCIATES, INC. INC.

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):

Henderson County Closed Landfill facility owner

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

Name: Natalie J. Berry or Greg Wiggins Phone: (828) 694-6521 or (828) 697-4505 respectively

E-mail: nberry@hendersoncountync.org/gwiggins@hendersonccy

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Henderson County Closed Landfill	191 Transfer Station Drive Hendersonville, NC 28791	45-01	.1600/.0500	September 20, 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) _____
 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.

Natalie J. Berry PE Assistant County Engineer (828) 694-6521

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

Natalie Jo Berry 9/26/2013

Signature Date

100 N. King Street, Suite 210 - Hendersonville, NC 28792

Facility Representative Address

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

