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).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- 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: Dennis F. Tyndall, P.G. Phone: (704) 336-5454

E-mail: Dennis.Tyndall@MecklenburgCountyNC.gov

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Holbrooks Road Landfill	15401 Holbrooks Road	60-02	.0500	Sept. 29 - Oct. 2, 2008

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.

Dennis F. Tyndall, P.G.	Hydrogeologist	(704) 336-5454
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Signature 4 MARCH 09 Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

Revised 01/2007

MECKLENBURG COUNTY

Land Use and Environmental Services Agency

March 4, 2009

Jaclynne Drummond
North Carolina Department of Environment
and Natural Resources
Division of Waste Management
Groundwater Compliance Unit
Mail Service Center 1646
Raleigh, NC 27699-1646

Subject: Holbrooks Road Landfill Permit 60-02
Semi-annual Monitoring Results

Dear Ms. Drummond:

Please find enclosed the laboratory report and spreadsheets for the closed Holbrooks Road Landfill monitoring conducted September 29 thru October 2, 2008. Samples were collected from fifteen (15) monitoring wells (HRW-7, HRW-8, HRW-9, HRW-10, HRW-11R, HRW-12, HRW-13, HRW-14, HRW-15 HRW-16, HRW-17, HRW-18, HRW-19, HRW-20 and HRW-21) and three (3) surface-water sampling locations (HRSW-2, HRSW-3 and HRSW-4). Samples were analyzed for metals and volatile organic compounds ("VOCs") in accordance with the approved Sampling and Analysis Plan dated March 3, 2003. Field measurements of temperature, pH, and specific conductivity were made at each sampling location using a calibrated instrument. Additionally, measurements of dissolved oxygen were made at each surface-water sampling location.

The electronic data deliverable package containing the monitoring data is labeled to reflect the units that are used for reporting. Detection levels and applicable standards have been included for all sampling locations. Surface water standards listed are the water quality standards established for freshwater classification for aquatic life as outlined in 15A NCAC 2B "Classification and Water Quality Standards Applicable to Surface Waters of North Carolina". Groundwater standards listed are the standards outlined in 15A NCAC 2L "Classification of Water Quality Standards applicable to the Groundwaters of North Carolina". If the sample is reported in parts per billion, then the standard is also reported in parts per billion.

Groundwater samples:

Cadmium was detected at 48 ug/l above the 2L Standard of 1.75 ug/l in the sample collected from HRW-7. Chromium was detected at 60 ug/l above the 2L standard of 50 ug/l in the sample collected from HRW-13. These are the only metals detected above the 2L standard for any of the samples collected this event.

VOCs were detected in samples collected from five monitoring wells (HRW-7, HRW-9, HRW-12, HRW-17 and, HRW-18). The table below summarizes VOC's detections.

Well ID	Volatile Constituent	Concentration (ug/l)	2L Standard (ug/l)
HRW-7	Acetone	88	700
	cis-1,2-Dichloroethene	11	70
	Trichloroethene	**10**	**2.8**
HRW-9	1,2-Dichlorobenzene	6	24
	1,4-Dichlorobenzene	**6**	**1.4**
	1,1-Dichloroethane	46	70
	cis-1,2-Dichloroethene	**83**	**70**
	Methylene Chloride	**14**	**4.6**
	Tetrachlorethene	**7**	**0.7**
	Trichloroethene	**12**	**2.8**
	Trichlorofluoromethane	21	2,100
	Vinyl Chloride	**11**	**0.015**
HRW-12	Chlorobenzene	6	50
	Chloroethane	5	2,800
	1,1-Dichloroethane	5	70
HRW-17	1,1-Dichloroethane	22	70
	1,1-Dichloroethene	4	7
	Cis-1,2-Dichloroethene	4	70
	1,4-Dichlorobenzene	**4**	**1.4**
HRW-18	**Benzene**	**10**	**1**
	Chloroethane	10	2,800
	1,1-Dichloroethane	50	70
	cis-1,2-Dichloroethene	4	70
	Trichlorofluoromethane	27	2,100
	Vinyl Chloride	**19**	**0.015**

Note: Results shown in bold exceed the 2L Standard.

Temperatures ranged from a low of 14.4°C in HRW-9 to a high of 19.5°C in HRW-7.

Field-measured pH ranged from a low of 5.88 in well HRW-12 to a high of 6.84 in HRW-19. pH was more acidic than the 2L Standard range of 6.5 to 8.5 standard units in wells HRW-7, HRW-8, HRW-9, HRW-11R, HRW-12, HRW-13, HRW-17 and background well HRW-21.

Field-measured specific conductivity ranged from a low of 103 umho/cm in well HRW-14 to a high of 2,330 umho/cm in well HRW-12.

Field-measured parameters for groundwater samples are summarized in the table below.

Sample Location	Temp. °C	pH	Specific Conductivity umho/cm
HRW-7	19.5	**5.85**	635
HRW-8	17.6	**6.35**	110
HRW-9	14.4	**6.00**	759
HRW-10	18.5	6.65	964
HRW-11R	18.5	**5.53**	414
HRW-12	15.5	**5.88**	2,330
HRW-13	16.6	**6.22**	193
HRW-14	14.8	6.73	103
HRW-15	15.9	6.81	162
HRW-16	16.5	6.50	253
HRW-17	15.0	**6.09**	1,104
HRW-18	16.9	6.69	1,192
HRW-19	16.5	6.84	202
HRW-20	15.5	6.83	258
HRW-21	16.3	**6.42**	495

Surface-water samples:
No metals or VOCs were detected in any of the three surface-water sampling locations (HRSW-2, HRSW-3 and HRSW-4). All field-measured parameters were within the established regulatory limits and consistent with historical measurements. The table below summarizes field-measured parameters for surface-water samples.

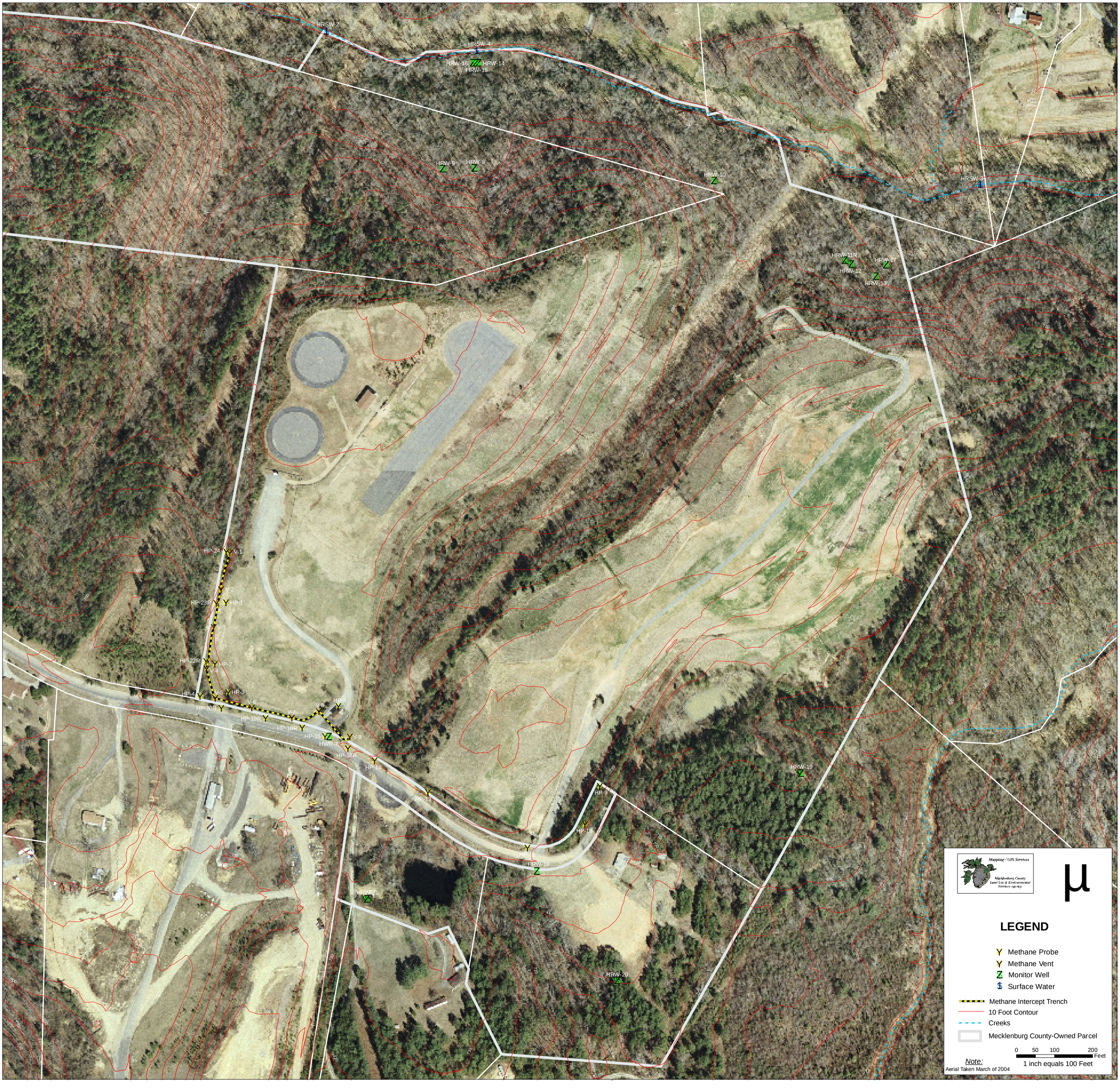
Sample Location	Temp. °C	pH	Specific Conductivity	Dissolved Oxygen
HRSW-2	14.4	7.34	226 umho/cm	9.53 mg/l
HRSW-3	14.4	7.21	143 umho/cm	9.26 mg/l
HRSW-4	14.8	7.23	226 umho/cm	9.56 mg/l

Please call me at (704) 336-5454 if you have any questions regarding this report.

Sincerely,

Dennis F. Tyndall, P.G.
Hydrogeologist
Groundwater and Wastewater Services

cc: Amber Lindon, P.G., Mecklenburg County LUESA, Solid Waste Management


HRSW-2
HRSW-4
HRW-16
HRW-14
HRW-15
HRW-9
HRW-8
HRW-10
HRSW-3
HRW-11R
HRW-17
HRW-12
HRW-13
HP-24
V-1
V-2
HP-23R
HP-1
V-3
HP-22R
HP-2
V-4
HP-4
V-5
HP-3
V-6
HP-20R
V-8
HP-5
HP-19R
V-7
HP-18R
HP-15
V-9
HWR-7
HP-16R
HP-14
HP-13
HRW-19
HP-9
HP-10
HRW-18
HRW-21
HRW-20
Mapping / GIS Services
Mecklenburg County
Land Use & Environmental
Services Agency
LEGEND
Methane Probe
Methane Vent
Monitor Well
Surface Water
Methane Intercept Trench
10 Foot Contour
Creeks
Mecklenburg County-Owned Parcel
0 50 100 200
Feet
1 inch equals 100 Feet
Note:
Aerial Taken March of 2004