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):

Mecklenburg County Land Use & Environmental Services

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@mecklenurgcountync.gov

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Harrisburg Road Landfill	7819 Harrisburg Road Charlotte, NC	60-01	.0500	June 26 - July3, 2007

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 or explosive methane gas limits 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

Affix NC Licensed Professional Geologist Seal

Signature 5 Feb 2008 Date

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

Revised 10/2006

MECKLENBURG COUNTY

Land Use and Environmental Services Agency
Water and Land Resources

February 5, 2008

Ms. 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: Water Quality Monitoring Report
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill in June 2007 in accordance with the approved revised sample and analysis plan dated May 11, 2004. Samples were collected from eleven monitoring wells (HBW-12A, HBW-12B, HBW-14, HBW-14B, HBW-14C, HBW-14D, HBW-17B, HBW-20, HBW-21, HBW-22 and background well HBW-28), two potable wells (HBW-744 and the Clubhouse well) and, three surface-water sampling locations (HB2006, HB2008 and, HB2010 formerly HBSW-2006, HBSW-2008 and HBSW-2010 respectively). The names of surface water sampling sites were truncated to accommodate the character limit of the new laboratory data management software. Laboratory data, field data, tables of values exceeding 2L standards are contained on the electronic data deliverable submittal on the enclosed CD.

The Excel spreadsheets containing the monitoring data are 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. Results exceeding water quality standards along with a preliminary explanation of the cause and significance are included on a separate table.

Surface-water samples:

No analytes were detected in the samples collected from HB2006, HB2008 or HB2010.

Field-measured parameters for surface-water samples were within the range of established standards and are summarized in the following table:

Location	Temperature	PH	Specific Conductivity	Dissolved Oxygen
HB2006	19.1 ° C	7.44	196 umhos/cm	7.14 mg/l
HB2008	19.3 ° C	7.48	200 umhos/cm	7.16 mg/l
HB2010	18.8 ° C	7.18	206 umhos/cm	7.18 mg/l

Groundwater samples:

Iron exceeds the standard in samples collected from monitoring wells HBW12B and HBW-14. The concentrations of iron detected are within the historical range of detections and is likely naturally occurring.

Manganese exceeds the standard in samples collected from monitoring wells HBW12B and HBW-14. The manganese concentrations detected in these samples are within the historical range of detection and is likely naturally occurring.

No other metals were detected above the 2L standard.

The following nine volatile organic compounds ("VOCs") were detected in the sample collected from well HBW-17B:

VOC	Sample Result ug/l	2L Standard ug/l
Benzene	**20**	**1**
Methylene Chloride	**18**	**5**
Tetrachloroethylene	**64**	**0.7**
Trichloroethylene	**49**	**2.8**
Vinyl Chloride	**10**	**0.15**
1,1-Dichloroethane	25	700
1,2-Dichloropropane	**8**	**0.56**
cis-1,2 Dichloroethene	**110**	**70**
Xylenes (total)	25	530

Note: Bolded results are in excess of the 2L Standard

The number and concentrations of VOC's detected in the sample from HBW-17B was similar to the past four sampling events. No VOC's were detected in any other samples.

pH was measured to be more acidic than the standard in the samples collected from (HBW-12A, HBW-12B, HBW-14, HBW-14D, HBW-17B, HBW-21, HBW-22 and background monitoring well HBW-28). The pH measurements are within the historical

range of measurement for each location. Field-measured parameters for groundwater samples are summarized in the following table:

Location	Temperature	pH	Conductivity
HBW-12A	17.5 °C	**6.38**	305 umhos/cm
HBW-12B	18.5 °C	**6.36**	339 umhos/cm
HBW-14	15.0 °C	**6.49**	242 umhos/cm
HBW-14B	14.6 °C	6.67	194 umhos/cm
HBW-14C	14.4 °C	6.60	196 umhos/cm
HBW-14D	15.1 °C	**6.40**	300 umhos/cm
HBW-17B	16.3 °C	**5.40**	58 umhos/cm
HBW-20	16.1 °C	6.89	91 umhos/cm
HBW-21	15.7 °C	**6.05**	599 umhos/cm
HBW-22	18.4 °C	**6.41**	69 umhos/cm
HBW-28	18.1 °C	**5.33**	103 umhos/cm
HBW-744	18.6 °C	6.72	182 umhos/cm
Clubhouse Well	17.8 °C	6.50	73 umhos/cm

Note: Bolded results are outside of the 6.5 to 8.5 S.U. range 2L Standard

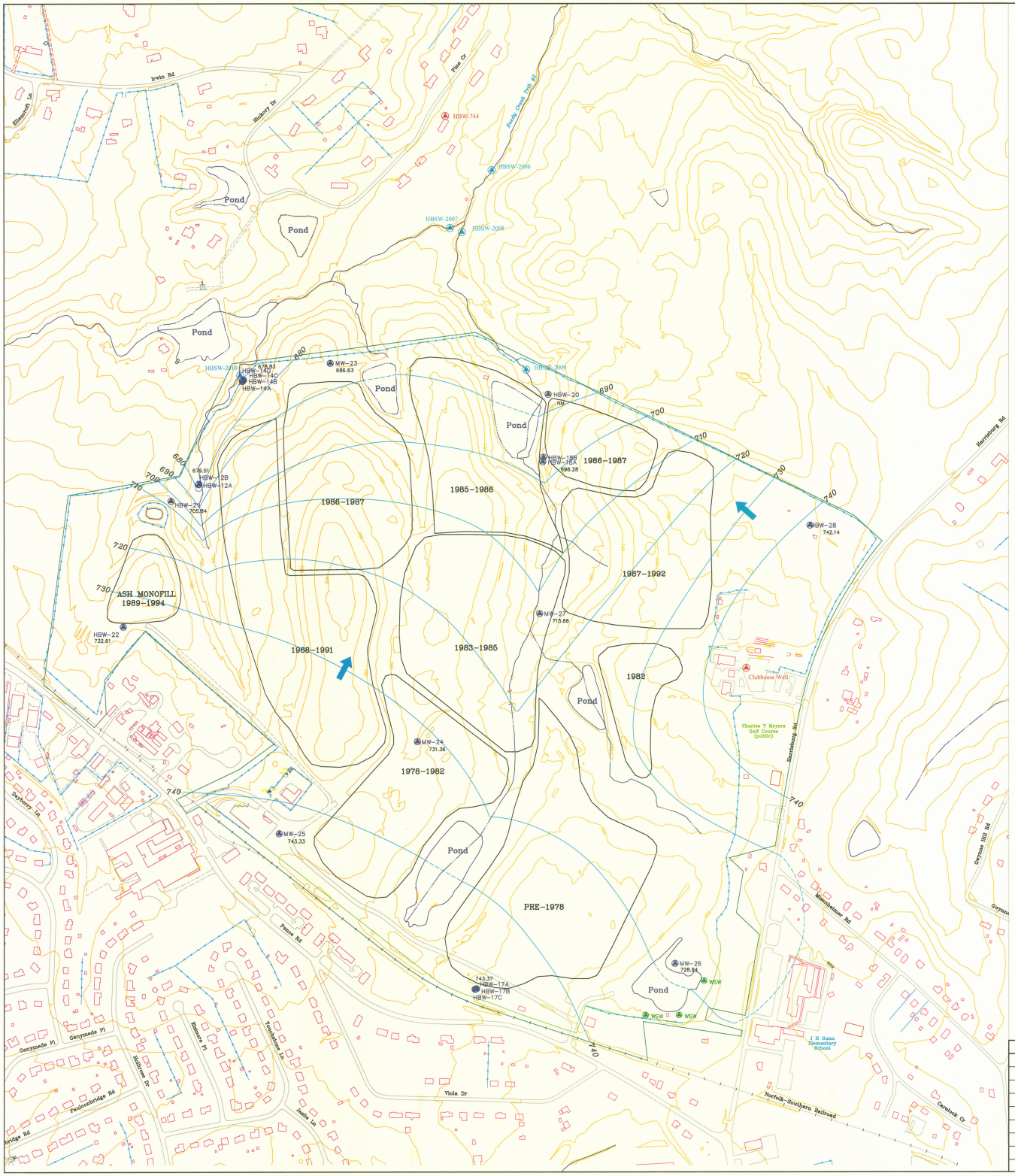
Total coliform bacteria analysis was performed for groundwater samples collected from monitoring wells, HBW-14 and potable wells HBW-744 and Clubhouse Well per requirements of the local zoning ordinance. Total coliform bacteria were not detected in any of the samples.

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

Sincerely,

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

cc: Amber Lindon, P.G., Project Manager, LUESA Solid Waste Program



LEGEND

- MONITORING WELL
- POTABLE WELL
- SURFACE-WATER SAMPLING LOCATIONS
- WATER SUPPLY WELLS FOR IRRIGATION PURPOSES
- 731.46 GROUNDWATER SURFACE ELEVATION (FT) (4/23/01)
- APPROXIMATE WASTE BOUNDARY AND DATES OF PLACEMENT
- GROUNDWATER SURFACE (ESTIMATED WHERE DASHED)
- GENERALIZED GROUNDWATER FLOW DIRECTION
- PLANIMETRIC FENCELINE CAPTURED AT PHOTOSCALE 1" = 1000'
- SURFACE WATER CAPTURED AT PHOTOSCALE 1" = 1000'
- TAX PARCEL BOUNDARY

NOTES:
1. ALL ON SITE WELL LOCATIONS WERE SURVEYED BY FDL ASSOC.
2. GROUNDWATER DATA REFLECTS PUMPING CONDITIONS FROM WATER SUPPLY WELLS IN THE AREA OF MW-26.
3. SURFACE-WATER SAMPLING SITES LOCATED USING GPS - SEPTEMBER 3, 2002
4. GROUNDWATER SURFACE CONTOURS BASED ON S&ME MAP DATED JUNE 4, 2001
5. HBW-28 RENAMED FROM MW-28

NORTH CAROLINA LICENSED SEAL 1845 GEOLOGIST DENNIS F. TYNDALL

GRAPHIC SCALE

600 300 150 0 300 900

(IN FEET)
1 inch = 300 ft.

SOURCE: MECKLENBURG COUNTY GIS AND GPS SURVEY FOR WELL LOCATIONS AND S&ME MAP DATED JUNE 4, 2001

NO.	DATE:	DESCRIPTION	BY

Mapping / GIS Services
Mecklenburg County Land Use & Environmental Services Agency

SAMPLE LOCATION PLAN

HARRISBURG ROAD LANDFILL
CHARLOTTE, NORTH CAROLINA

SCALE:	1" = 300'	DRAWN BY:	S.GREGORY	CHECKED BY:	
JOB NO.	MAP/GIS	DATE:	10/15/02	FIGURE:	FIGURE1