



MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Solid Waste Services

July 14, 2014

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 June 2014
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill June 9 and June 10, 2014 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 MAINTe) and, three surface-water sampling locations (HB2006, HB2008 and, HB2010). Laboratory analytical data, field-measured data, and a table of results exceeding water quality standards along with a preliminary explanation of the cause and significance are included on the electronic data deliverable (EDD) submittal on the enclosed CD.

The EDD 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.

PEOPLE • PRIDE • PROGRESS • PARTNERSHIP

700 N. Tryon Street • Charlotte, NC 28202-2236 • (704) 336-2831 • FAX (704) 336-4314

www.wipeoutwaste.com

Surface-water samples:

No contaminants were detected in the surface water samples. Field-measured parameters for surface-water samples were within the range of established standards and are summarized in the table below.

Location	Temperature	PH	Specific Conductivity	Dissolved Oxygen
HB2006	20.4° C	7.4	0.226 ms/cm	8.67 mg/l
HB2008	19.8° C	7.5	0.244 ms/cm	8.46 mg/l
HB2010	19.5 ° C	7.3	0.223 ms/cm	8.65 mg/l

Groundwater samples:

Chromium was detected above the 2L standard in HBW12A and HBW22. Cobalt and Vanadium were detected above their newly developed groundwater standards in a number of wells. No other metals were detected above the 2L standard. The table below summarizes metals detections in groundwater samples.

Well ID	Ba ug/l	Be ug/l	Cd ug/l	Cr ug/l	Co ug/l	Cu ug/l	Ni ug/l	Pb ug/l	Vn ug/l	Zn ug/l
MAINTE	-----	-----	-----	-----	-----	51	-----	-----	5.3	160
HBW744	-----	-----	-----	-----	-----	3.3	-----	-----	5.3	18
HBW12A	-----	-----	-----	12	11	38	8.2	-----	68	27
HBW12B	-----	-----	-----	-----	7.1	12	-----	-----	22	-----
HBW14	-----	-----	-----	-----	-----	8.3	-----	-----	-----	-----
HBW14B	-----	-----	-----	-----	-----	2.3	-----	-----	-----	-----
HBW14C	-----	-----	-----	-----	-----	2.9	-----	-----	-----	-----
HBW14D	-----	-----	-----	-----	-----	2.8	-----	-----	-----	-----
HBW17B	-----	-----	-----	-----	19	26	-----	-----	-----	22
HBW-20	-----	-----	-----	-----	-----	4.6	-----	-----	12	-----
HBW-21	-----	-----	-----	-----	-----	2.9	-----	-----	17	-----
HBW-22	-----	-----	-----	17	-----	3.6	5.2	-----	-----	-----
HBW-28	-----	-----	-----	-----	25	25	-----	-----	10	14
2L Std. ug/l	700	-----	2.0	10	1	1,000	100	15	0.3	1,000

Note: Bolded results exceed 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	15	1
Methylene Chloride	7	5
Tetrachloroethylene	61	0.7
Trichloroethylene	41	2.8
1,1-Dichloroethane	12	6
1,2-Dichloropropane	13	0.6
cis-1,2 Dichloroethene	150	70
Xylenes (total)	17	500
Acetone	13	6000

Note: Bolded results exceed 2L Standard

The pH was measured to be more acidic than the standard in the samples collected from HBW-12A, HBW-12B, HBW14D, HBW17B, HBW-20, HBW-21, HBW-22 and background monitoring well HBW-28. Field-measured parameters for groundwater samples are summarized in the following table:

Location	Temperature	pH	Conductivity
HBW12A	14.7 °C	6.3	0.273 ms/cm
HBW12B	14.9 °C	6.2	0.324 ms/cm
HBW14	14.3 °C	6.8	0.196 ms/cm
HBW14B	14.3 °C	6.6	0.196 ms/cm
HBW14C	14.4 °C	6.6	0.192 ms/cm
HBW14D	13.8°C	6.4	0.324 ms/cm
HBW17B	17.5 °C	5.0	0.060 ms/cm
HBW-20	15.4 °C	6.4	0.125 ms/cm
HBW-21	15.9 °C	6.2	0.241 ms/cm
HBW-22	18.1 °C	6.0	0.058 ms/cm
HBW-28	17.4 °C	4.7	0.051 ms/cm
HBW-744	17.3°C	7.3	0.195 ms/cm
MAINTE	18.7 °C	6.9	0.068 ms/cm

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

Please call me at (704) 432-2478, if you have any questions concerning this report.



Sincerely,

Amber R. Grzymski, P.G.
 Project Manager
 LUESA Solid Waste Services