



MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Solid Waste Services

July 6, 2012

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 2012
Harrisburg Road Landfill, Permit 60-01

Dear Ms. Drummond:

Mecklenburg County conducted semi-annual water quality monitoring at the closed Harrisburg Road Landfill June 4 and June 5, 2012 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), one potable well (HBW-744) 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.

Surface-water samples:

No analytes were detected in the samples collected from HB2006, HB2008 and HB 2010. 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	18.2 ° C	7.37	0.209 ms/cm	7.99 mg/l
HB2008	18.1 ° C	7.28	0.199 ms/cm	7.98 mg/l
HB2010	17.1 ° C	6.59	0.244 ms/cm	8.72 mg/l

Groundwater samples:

Chromium was detected above the 2L standard in HBW22. This was due to the lowering of the groundwater standard from 50 ug/l to 10 ug/l. 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
HBW744	-----	-----	-----	-----	-----	-----	-----	-----	5.7	-----
HBW12A	-----	-----	-----	9.3	8.4	34	5.6	-----	63	19
HBW12B	-----	-----	-----	5.6	14	30	3.2	-----	42	14
HBW14	-----	-----	-----	-----	-----	15	-----	-----	6.9	-----
HBW14B	-----	-----	-----	-----	-----	3.4	-----	-----	-----	-----
HBW14C	-----	-----	-----	-----	-----	6.0	-----	-----	-----	-----
HBW14D	-----	-----	-----	-----	-----	3.4	-----	-----	-----	-----
HBW17B	-----	-----	-----	-----	18	11	-----	-----	-----	18
HBW-20	-----	-----	-----	-----	-----	4.9	-----	-----	12	-----
HBW-21	-----	-----	-----	-----	-----	2.3	2.5	-----	5.9	-----
HBW-22	-----	-----	-----	29	-----	5.3	4.2	-----	-----	-----
HBW-28	-----	-----	-----	6.9	20	23	5.4	-----	18	18
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	17	1
Methylene Chloride	6	5
Tetrachloroethylene	64	0.7
Trichloroethylene	46	2.8
1,1-Dichloroethane	15	6
1,2-Dichloropropane	15	0.6
cis-1,2 Dichloroethene	180	70
Vinyl Chloride	6	.03
Xylenes (total)	26	500

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, HBW14, HBW14B, HBW14C, 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	15.0 °C	6.00	0.269 ms/cm
HBW12B	15.1 °C	5.92	0.297 ms/cm
HBW14	14.5 °C	6.16	0.198 ms/cm
HBW14B	14.8 °C	6.08	0.188 ms/cm
HBW14C	14.8 °C	6.01	0.188 ms/cm
HBW14D	15.4°C	5.90	0.313 ms/cm
HBW17B	16.2 °C	5.26	0.059 ms/cm
HBW-20	16.0 °C	5.78	0.106 ms/cm
HBW-21	15.5 °C	5.86	0.321 ms/cm
HBW-22	17.1 °C	6.09	0.059 ms/cm
HBW-28	17.2 °C	5.34	0.032 ms/cm
HBW-744	17.6 °C	6.97	0.182 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. Grzymiski, P.G.
 Project Manager
 LUESA Solid Waste Services

