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October 17, 2011

Ms. Jackie Drummond  
Division of Waste Management/ Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646

**RE: Notification of Constituent Detections  
Second Semiannual Sampling Event of 2011  
Piedmont Landfill & Recycling Center, Permit No. 34-06  
JEI Project No. 392.1101.12, Task 01**

Dear Ms. Drummond:

On behalf of Waste Management, Joyce Engineering, Inc. (JEI) is submitting this notification of constituent detections at the Piedmont Landfill and Recycling Center (Permit No. 34-06), in accordance with Title 15A, Chapter 13, Subchapter 13B, Section .1634 of the North Carolina Solid Waste Management Regulations. The second semiannual sampling event of 2011 at the Piedmont Landfill and Recycling Center was performed on September 14, 2011 by Pro-Tech. During this semiannual event, the site compliance wells, surface water monitoring points, and leachate were sampled. The samples were delivered under chain-of-custody control to Test America in Arvada Colorado.

Inorganic constituents with quantified detections (above the SWSL) in one or more groundwater or surface water samples included barium in MW-02 and MW-08, and chromium in MW-03. Chromium was detected above the NC2L in MW-03. Chromium in MW-03 is considered to be the only statistically significant increase (SSI) above background during the September 2011 sampling event. An Alternate Source Demonstration (ASD) was submitted on July 26, 2010 for the exceedance of chromium detected in MW-03 during the March 2010 sampling event. DENR has approved the ASD for the Piedmont Landfill and Recycling Center (Permit No. 34-06). No other Appendix I inorganic constituents were detected above the SWSL or the NC2L groundwater standards or groundwater protection standards (GWPS) in any detection monitoring well or surface water sample during the September 2011 sampling event. These results are summarized in the attached table.

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A complete Semiannual Groundwater Monitoring Report will be submitted in the near future. If you have any questions or need additional information, please feel free to contact me at (336) 323-0092.

Sincerely,  
**JOYCE ENGINEERING, INC.**



Van Burbach, Ph.D., P.G.  
Technical Consultant

Attachment: Table of Detected Constituents

C: Alexander Lacsamana, P.E., Waste Management

**TABLE 1  
QUANTIFIED DETECTED APPENDIX I AND APPENDIX II CONSTITUENTS**

WELL ID	PARAMETER	RESULT	UNITS	SWSL	NC 2L	LIMIT	SSI
3406-MW02	Barium	130	µg/L	100	700	1,143.3	No
3406-MW03	Chromium	13	µg/L	10	10	18.2	Yes*
3406-MW08	Barium	100	µg/L	100	700	1,126.4	No

Notes:

1. SWSL = NC DENR Solid Waste Section Limits
2. NC2L = 15A-NCAC-2L.0202 Groundwater Standards
3. LIMIT = Background limit based on intra-well statistics.
4. SSI = Apparent statistically-significant increase above background.
5. Estimated and blank-qualified detections are excluded (except for resampling results).
6. J = Estimated concentration below the SWSL.
7. Shaded values are greater than the NC 2L Standard.
8. Chromium in MW-03 has been dealt with in an ASD approved by DENR