

# ***Bridgeton Landfill* LLC**

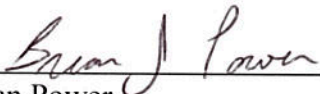
April 27, 2016

Mr. Chris Nagel  
Director, Solid Waste Management Program  
Missouri Department of Natural Resources  
1738 East Elm Street  
Jefferson City, MO 65102

Dr. Mr. Nagel:

Please find enclosed the Slope Stability Assessment summarizing the slope stability analysis for first quarter 2016, conducted pursuant to Paragraph 10 of the Second Amendment of the First Agreed Order.

Best regards,

  
\_\_\_\_\_  
Brian Power  
Environmental Manager  
Bridgeton Landfill, LLC

P. J. Carey & Associates, P.C.

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April 14, 2016

Brian J. Power  
Environmental Manager  
Bridgeton Landfill, LLC.  
13570 Saint Charles Rock Road  
Bridgeton, MO 63044

RE: Bridgeton Stability  
1<sup>st</sup> Quarter 2016 Inspection

Dear Brian,

On March 30, 4, 2016 I performed an inspection of the Bridgeton Landfill for the purpose of identifying any visual evidence of instability or incipient failure. The inspection included the north and south quarry fill areas. This inspection was for the first quarter of 2016. The previous inspection was performed on 12/4/2015.

The observation of the slopes for both the north and south quarry areas was performed to look for telltale signs of movements related to instability, including areas of suspension of the membrane on the upslope areas that would result if scarping, not visible due to the temporary membrane cap, existed.

The inspection revealed the presence of surficial slumps in the south east edge of the landfill, between the perimeter ditch and perimeter liquid collection trench installed at the time of capping. These slumps were observed during the previous 5 inspections and have not progressed uphill into the general slope. No indications of instability were noted uphill of this location. The slump shapes continue to suggest they are the result of daylighting of seepage under the cap membrane and subsequent erosion/or slippage of the surficial soils downslope being transported and deposited at the perimeter uncap swale below. These localized slumps had not changed in appearance since the last inspection. Given that these slump shapes have not progressed up slope it is not necessary to repair them at this time.

The previously noted improvements to the north, east and west slopes of the northern quarry section of fill were noted to be nearly complete. Vegetation was yet to be completely established and some minor work is still in progress.

Since the inspections were begun in 2013, the sloping portions of the landfill are noticeably flatter and therefore, less prone to instability. At the present time, there are very few areas within the heat affected portions of the south quarry that have slopes exceeding 20 to 25%. This general reduction in vertical relief has greatly reduced any potential for instability.

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In addition, a review of the monthly settlement at grid points for the past quarter was performed. I did not see any indication of instability in the data. It should be noted that extensive settlement of the south quarry has occurred during this time without any instability of consequence. As mentioned in previous reports, this demonstrates the lack of coupling of instability and settlement at this site.

This is the fourteenth review I have performed of this type at the Bridgeton since the fall of 2012. To date, no signs of impending instability of any consequence has been identified or occurred.

I hope this information is helpful to you. Please call if there are any questions.

Sincerely,

A handwritten signature in black ink that reads "Peter J. Carey". The signature is written in a cursive style with a large initial "P" and a long, sweeping underline.

Peter J. Carey, PE  
President