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# Waste Form Release Data Package for the 2005 Integrated Disposal Facility Performance Assessment

## Erratum

September 2016



Prepared for the U.S. Department of Energy  
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# MEMORANDUM

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Date: **September 6, 2016** Project No.:  
To: **PNNL-14805, Rev 0 Erratum** Internal Distribution: **File/LB**  
From: **Gary L Smith**  
Subject: **Erratum**

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## Erratum

Please insert erratum page in report PNNL-14805.

This erratum serves to correct the  $K_g$  (Glass apparent equilibrium constant based on the  $\text{SiO}_{2(\text{aq})}$  activity) values affected by a calculation error for glasses LAWA44, LAWB45 and LAWC22. The error was first identified by Papathanassiou et al. (2011).

The  $K_g$  values were corrected by Freedman et al. (2015) by multiplying the erroneous  $K_g$  values by approx. 3.4. As indicated in Freedman et al. (2015), this 3.4 factor originates from the erroneous use of the molecular weight of  $\text{H}_4\text{SiO}_4$  ( $96.114 \text{ g}\cdot\text{mol}^{-1}$ ) instead of the molecular weight for Si ( $28.086 \text{ g}\cdot\text{mol}^{-1}$ ).

The corrected  $K_g$  values are reported in the table below and replace any other value in this report:

Glass	$K_g$ Glass apparent equilibrium constant based on $a[\text{SiO}_{2(\text{aq})}]$
<b>LAWA44</b>	<b><math>1.87 \times 10^{-3}</math></b>
LAWB45	$1.78 \times 10^{-3}$
<b>LAWC22</b>	<b><math>1.70 \times 10^{-3}</math></b>

Freedman V. L., Ryan J. V. and Bacon D. H. (2015) ILAW Glass Waste Form Release Data Package for the Integrated Disposal Facility Performance Assessment. **PNNL-24148**. Pacific Northwest National Laboratory, Richland, WA, USA.

Papathanassiou A. et al. (2011) ILAW Glass Testing for Disposal at IDF: Phase 1 Testing. **VSL-11R2270-1**. Vitreous State Laboratory, Catholic University of America, Washington, DC, USA.



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