**Cover Sheet**

**Changeling Annotation**

Washington State University

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Changeling was annotated in Spring 2014 by the students in the WSU SEA-PHAGES laboratory. This was the second genome that was annotated that semester, and the students were very efficient at identifying genes, including rationales for calling start sites and rationales for called gene functions.

There were several observed features in the genome that the students and faculty thought needed comment.

1. There is a frameshift in Gene 27 consistent with other A2 phages. Previous A2 phage annotations were used to assign the exact location of the frameshift.

2. There are many genes called in Changeling that have blast homology to only one other gene (e.g. 38, 57, 61, 63)

3. Gene 80 in Changeling has no BLAST homology to another gene, either mycobacteriophage or other, so it may represent a new gene in these genomes.