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Meredith G Anderson* (mand1269@nmsu.edu), Department of Mathematical Sciences, 1291 Frenger Mall, MSC 3MB / Science Hall 236, Las Cruces, NM 88003. *Character Varieties of Dehn Fillings of a 3-component Link*. Preliminary report.

Kenneth Baker, Jesse Johnson and Elizabeth Klodginski proved that every tunnel number one once-punctured torus bundle is the $r/1$ -Dehn filling of a boundary component of the Whitehead link exterior, for some integer r . Subsequently, Baker and Kathleen Petersen calculated the character varieties of these manifolds using the bundle description. The canonical component of a character variety for one of these manifolds is a complex curve. Using the ideas in these papers, I examine an infinite family of 3-manifolds which are bundles over the circle with fiber a twice-punctured torus. These manifolds can be obtained as the Dehn filling of a boundary component of the exterior of a three component link, where two of the components form the Whitehead link. I then find descriptions of the character varieties for these manifolds, working from fundamental group presentations with three generators and two relations. The canonical component of a character variety of one of these examples turns out to be a complex surface which is the product of an affine line with a plane curve. (Received September 12, 2014)