Accepted Manuscript

Accepted Date:

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PII: DOI: Reference:	S1367-9120(16)30168-7 http://dx.doi.org/10.1016/j.jseaes.2016.06.005 JAES 2724
To appear in:	Journal of Asian Earth Sciences
Received Date:	29 February 2016
Revised Date:	31 May 2016

10 June 2016

ISBN 1567-9120

Please cite this article as: Yumul, G.P. Jr., Brown, W.W., Dimalanta, C.B., Ausa, C.A., Faustino-Eslava, D.V., Payot, B.D., Ramos, N.T., Lizada, A.N.L., Buena, A.E., Villaplaza, B.R.B., Manalo, P.C., Queaño, K.L., Guotana, J.M.R., Pacle, N.A.D., Adakitic rocks in the Masara gold-silver mine, Compostela Valley, Mindanao, Philippines: Different places, varying mechanisms?, *Journal of Asian Earth Sciences* (2016), doi: http://dx.doi.org/10.1016/j.jseaes.2016.06.005

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Adakitic rocks in the Masara gold-silver mine, Compostela Valley, Mindanao, Philippines: Different places, varying mechanisms?

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Abstract

The presence of adakites has been used as an indicator for the occurrence of gold mineralization in many mineral prospecting works. Traditionally, the unique geodynamic controls to adakite formation, particularly the high temperature gradient and other slab-melting requirements, have been taken as key elements that must be present during their formation. However, several studies have suggested alternative mechanisms. This paper presents fractional crystallization as the most viable mechanism for the generation of adakitic rocks in the Masara gold-silver mine in Eastern Mindanao, Philippines. Furthermore, this paper also argues that the

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