

	Erupted Volume (km ³)			
Phase	Explosive	Effusive	Total	Percentage
1	1.7×10^{-1}	6.5×10^{-3}	1.8×10^{-1}	70%
2	3.1×10^{-2}	4.6×10^{-3}	3.6×10^{-2}	14%
3	1.9×10^{-3}	4.8×10^{-4}	2.4×10^{-3}	1%
4	3.7×10^{-2}	7.8×10^{-4}	3.8×10^{-2}	15%
All	2.4×10^{-1}	1.2×10^{-2}	2.5×10^{-1}	

Table 2 Volume of erupted magma by phase. Explosive erupted volumes calculated from eruption column heights using Equation 6 (Mastin et al., 2009). Eruption column heights recorded by Darwin VAAC and the Rabaul Volcanological Observatory observer on Manam. Effusive eruptions are estimated from satellite observation of lava flows and a representative thickness calculated from an orthomosaic from the September-October 2018 lava flow against a older digital elevation model (see supplementary material) and using a measured porosity (18.8%) from the September-October 2018 lava flow.