




Auckland Eruption Sequence

TIMELINE	Precursors		Event	PAUSES
	6-Feb	Background, no changes		
	15-Feb	Background; Feb 19 - small HF earthquakes representing background seismicity		Feb 23rd 0:00 - PAUSE - 20 minutes to prepare for a 10 min Press Conference
	1-Mar	Mar 6: LF quakes at depth, and shallowing. Mar 8: Magma reaches the brittle crust; Mar 8-13: Some HF quakes, with an increase in magnitude, and continuing to shallow. Swarms present now with up to 300 quakes per day.		March 8th 16:00 - PAUSE - 15 mins prepare for a 10 minute Interview between the Section Manager and a member of the EM team
	10-Mar	Some HF quakes, swarms. Deformation data no longer background. March 12 - beginning of gas changes. March 14- Tremor quakes present now, with accelerating deformation data and visual observations of cracking near Mangere. Gas levels increase, with deflation of ground surface. March 15-20 sudden decrease in gas levels. March 18 - tuff ring visible below water surface.	 <p>March 14th AM first phreatic eruption (Mangere). March 14 PM phreatomagmatic eruption (3 km plume); March 18 - Tuff ring visible underwater.</p>	March 14th @ 16:00 PAUSE, 10 min to prepare for a 15 min Joint GNS-EM Team Meeting to discuss the status of the Event
	20-Mar	March 20 - inflation (deformation) measureable now. March 21 - huge spike gas content (by huge magnitudes). Steady decrease in gas content after this. Prior to most magmatic eruptions, inflation events occur, with deflation occurring afterwards.	 <p>Mar 21 - Phreatomagmatic eruption (2.5 km plume) which continues sporadically over ~48 hours. March 22nd - 3rd phreatomagmatic eruption (1.5km), March 23rd - Tuff ring visible above water level. March 25 AM - Phreato to Magmatic eruption with fire-fountaining (500 m plume); March 25 PM - fire fountaining continues, ballistics are thrown 350 m high, continues for 8 hours; March 26th - Strombolian eruption (1 hr of fire fountaining; plume height of 300 m); March 29th - Magmatic eruption (max height of 500 m plume), intermittent eruptions over 2 days</p>	March 25th - 4:00 PAUSE 5 minute break :)
April 1 to April 14	Tremor continues over the entire eruptive period. Gas levels fall off as the activity becomes more effusive. Levels stabilize around April 4th. Height of deformation around April 2nd. Deflation continues as activity becomes more effusive		 <p>Small cinder cone is now visible. April 3rd - surface lava flows are visible. Flows go south to Kiwi esplanade. April 5th - flows on the western part of the cone. Flows go west, and reach the water - forming littoral explosions. A plume is present at lava-water contact (mostly steam, gas, and some ash) - that is present from April 5-13th. Lava bench collapse on April 14th (height of plume ranges from 40 - 100 m)</p>	April 3rd PAUSE 10 minutes to prepare for a 15 minute press conference