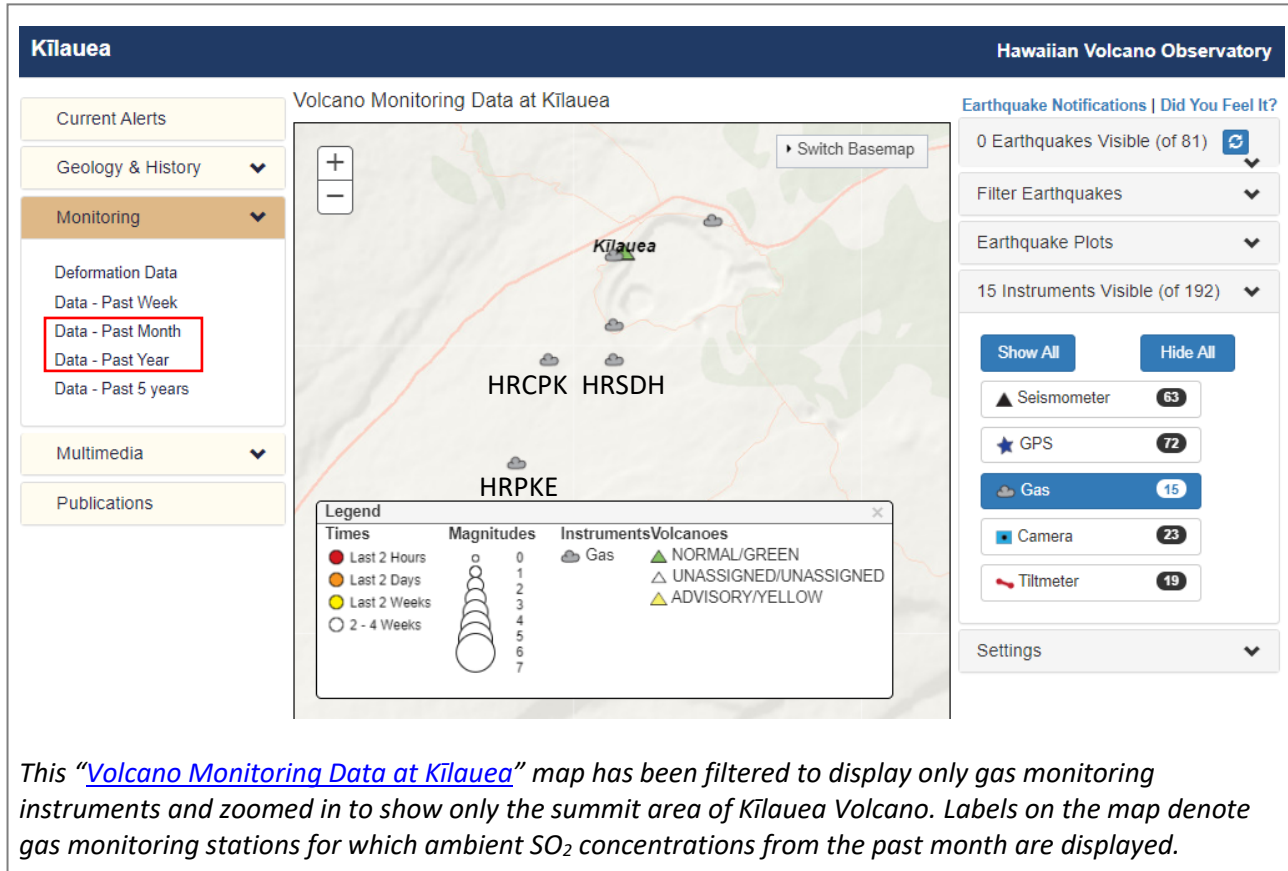


## Gas data added to Kīlauea monitoring web pages

HVO recently added Kīlauea summit gas data to the Kīlauea monitoring data web pages. These data include sulfur dioxide (SO<sub>2</sub>) concentrations in ambient air for the **past month** and SO<sub>2</sub> emissions for the **past year**.

To view gas data, go to the “[Volcano Monitoring Data at Kīlauea](#)” webpage. On the menu (left of station map—see red box in image below), select “**Data - Past Month**” or “**Data - Past Year**.”



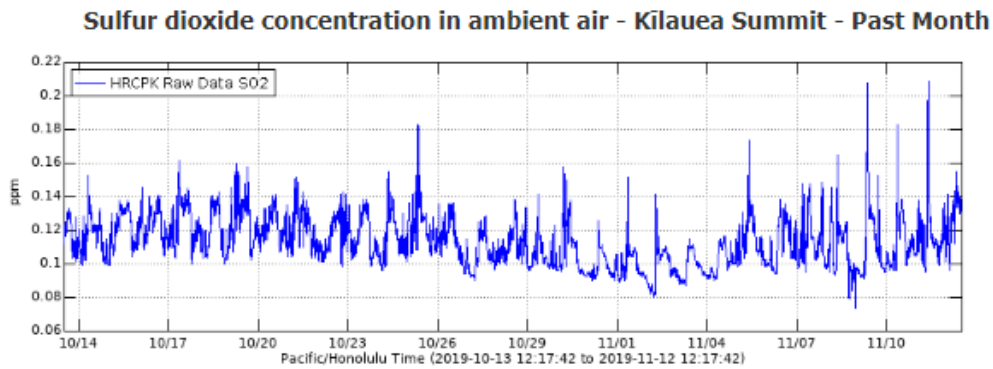
This “[Volcano Monitoring Data at Kīlauea](#)” map has been filtered to display only gas monitoring instruments and zoomed in to show only the summit area of Kīlauea Volcano. Labels on the map denote gas monitoring stations for which ambient SO<sub>2</sub> concentrations from the past month are displayed.

### To view Kīlauea summit SO<sub>2</sub> concentrations in ambient air for the past month:

On the “[Volcano Monitoring Data at Kīlauea](#)” webpage menu, click on “**Data - Past Month**” to reach the “[Past Month Monitoring Data for Kīlauea](#)” webpage. Scroll down to “Gas Data” near the bottom of the page. Graphs shown there display sulfur dioxide (SO<sub>2</sub>) concentrations in ambient air at three gas monitoring stations in the Kīlauea summit region: HRCPK, HRSDH, and HRPKE (labelled on map above). These stations are located southwest of Halema‘ūma‘u, and are downwind of the gas source during trade wind conditions.

Ambient SO<sub>2</sub> concentrations describe the amount of SO<sub>2</sub> in the air immediately surrounding each station, which will vary depending on wind and atmospheric conditions. The SO<sub>2</sub> is measured at about 1.5 m (about 5 ft) above ground level in parts per million (ppm) by volume. This value, displayed on the y-axis of each plot represents a one-minute average, which is

collected every 10-minutes. The x-axis shows the dates (month/day) measurements were made during the past month (example from station HRCPK shown below).

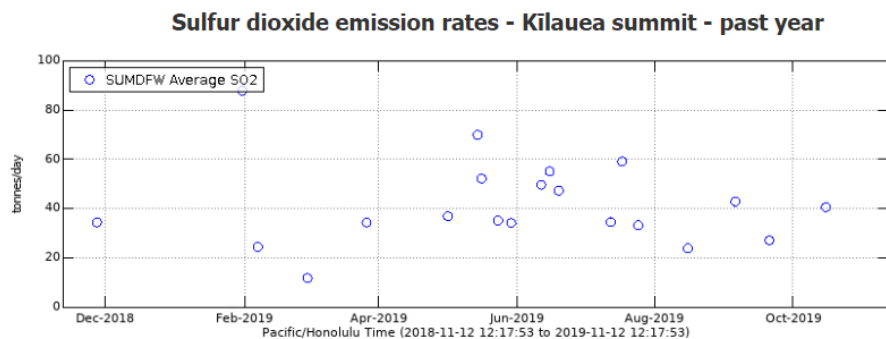


Ambient SO<sub>2</sub> data are collected using equipment designed for monitoring volcanic unrest and may not be as accurate or precise as other instruments used for air quality measurements. Therefore, the unprocessed data stream displayed on the monthly gas data plots may show drift in the background value or offset from a zero baseline. Spurious peaks in the plot may reflect instrument maintenance or malfunction.

### To view Kīlauea summit SO<sub>2</sub> emission rates for the past year:

On the “Volcano Monitoring Data at Kīlauea” webpage menu, click on “**Data - Past Year**” to reach the “[Past Year Monitoring Data for Kīlauea](#)” webpage. Scroll down to “Gas Data” near the bottom of the page to view a plot of Kīlauea summit SO<sub>2</sub> emission rates over the past year.

The emission rates presented here approximate the amount of SO<sub>2</sub> released by Kīlauea’s summit over a day. SO<sub>2</sub> emission rates are measured using an upward-looking ultraviolet spectrometer that is mounted on an HVO vehicle. The data are collected by traversing under the gas plume downwind of Halema’uma’u, generally within and south of Kīlauea’s summit caldera. Results from multiple traverses during a day are averaged to yield the emission rates shown in the plot, which are displayed in tonnes/day on the y-axis, with time (month/year) shown on the x-axis. Successful measurements depend on wind, weather, and staff availability. Values displayed in the plot are preliminary and are subject to revision.



We hope the availability of gas data on the Kīlauea Volcano monitoring pages is helpful. Constructive feedback is welcome (email [askHVO@usgs.gov](mailto:askHVO@usgs.gov)).