

COVID-19 Wastewater Monitoring Report

June 13, 2023

COVID-19 Wastewater Monitoring

The New Mexico Department of Health (NMDOH) is currently monitoring for SARS-CoV-2 (the virus that causes COVID-19) in wastewater collected at municipal wastewater treatment plants across the state. Symptomatic and asymptomatic individuals infected with SARS-CoV-2 shed the virus in their feces. This creates an opportunity to monitor for the presence of the virus in sewage. These data provide valuable information to decision-makers and can help inform public health actions to reduce the spread of COVID-19.

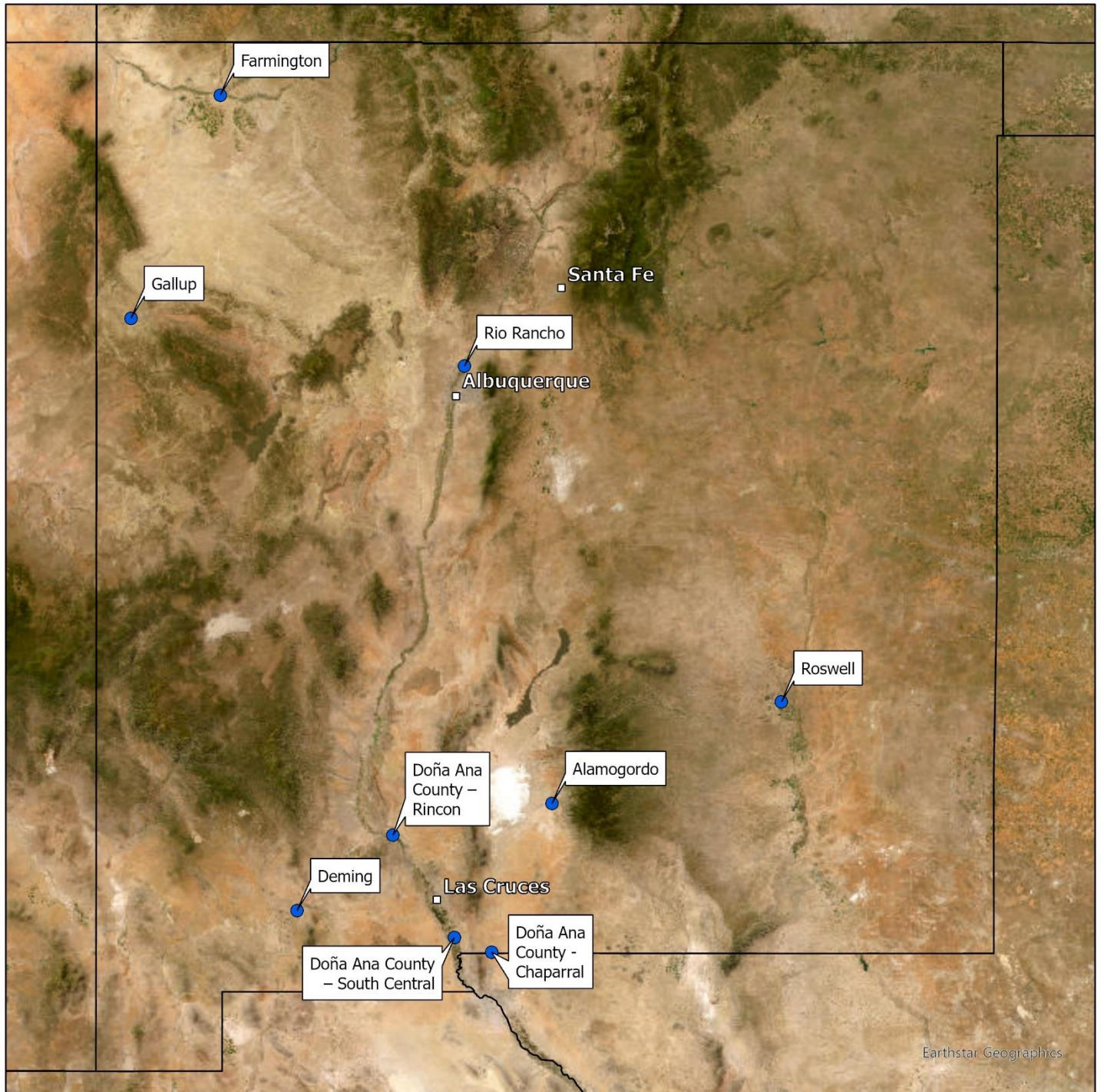
There are currently nine wastewater treatment plants participating in the voluntary program with NMDOH. Four additional facilities are participating in a similar program with the Centers for Disease Control and Prevention (CDC). At each utility, 24-hour composite samples are collected twice weekly and shipped to the agency's Scientific Laboratories Division (SLD) to analyze gene markers unique to the SARS-CoV-2 virus. Specifically, SLD uses a nucleic acid-based polymerase chain reaction assay to identify N1 and N2 genes, which the CDC has recommended as targets for identifying SARS-CoV-2.

This report summarizes wastewater monitoring results for the utilities actively participating in the program with NMDOH. For each utility, a graph shows the wastewater results reported through time in units of virus copies per liter. Note that the y-axis for the wastewater data uses a logarithmic (log) scale. Moving up the graph, each tick mark on the vertical axis represents a 10-fold increase in the virus concentration. Since SARS-CoV-2 levels in wastewater can range from hundreds to millions of copies per liter, the log scale offers an easy way to evaluate trends. Order of magnitude (or 10-fold) increases in wastewater concentrations may indicate that cases are increasing in the community. Note that the utilities included in this summary started sampling at different times, and some experienced pauses in sampling; as such, utility results cover varying periods.

Wastewater results are shared through these monthly reports while the agency's NMDOH's Information Technology Services Division is developing an interactive public-facing dashboard. The dashboard will provide additional information on the wastewater monitoring program and results collected to date.

NM COVID-19 Wastewater Monitoring Locations

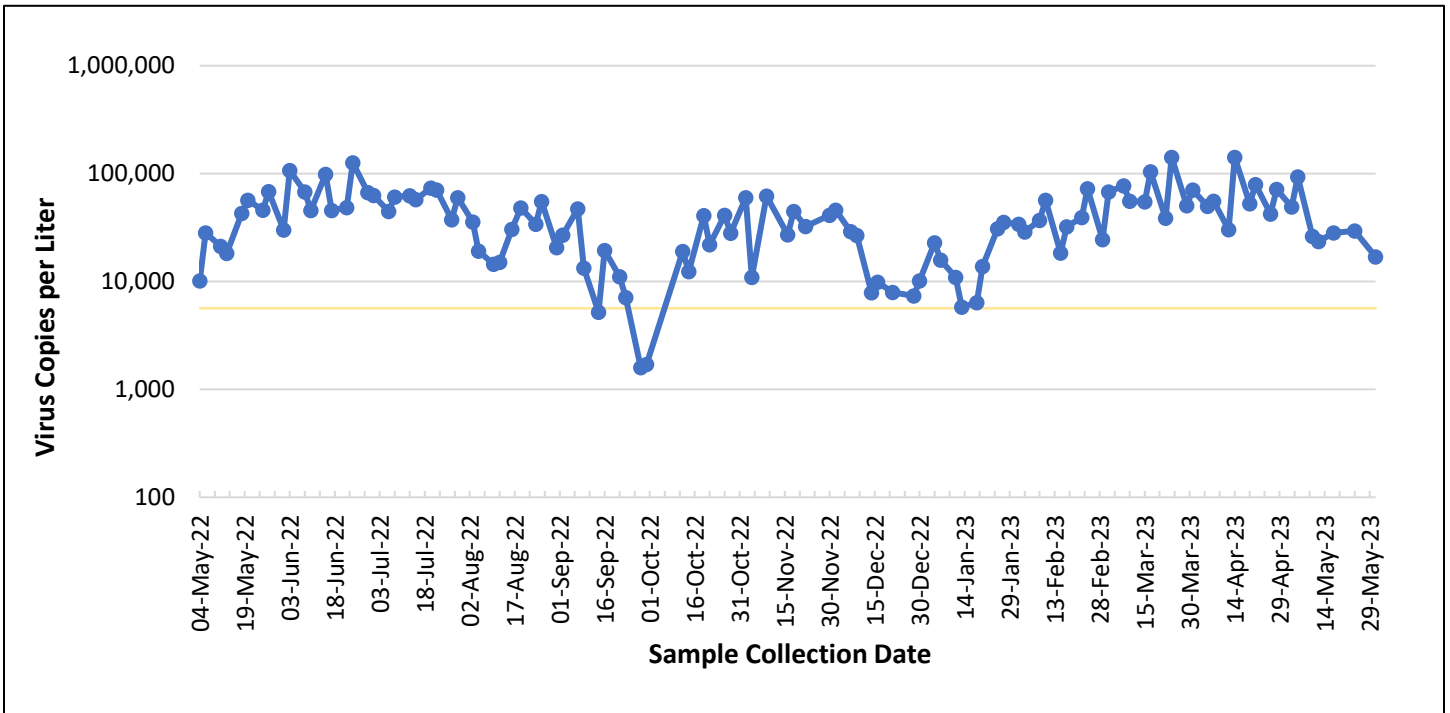
NMDOH is currently monitoring SARS-CoV-2 in wastewater samples collected at nine municipal wastewater treatment plants. Four other utilities (Albuquerque Bernalillo County Water Utility Authority, City of Santa Fe, White Rock Wastewater Treatment plant, and City of Los Alamos) in the state are analyzing wastewater samples for SARS-CoV-2 with support of the CDC. NMDOH is actively recruiting and onboarding additional utilities.



● Sampling location

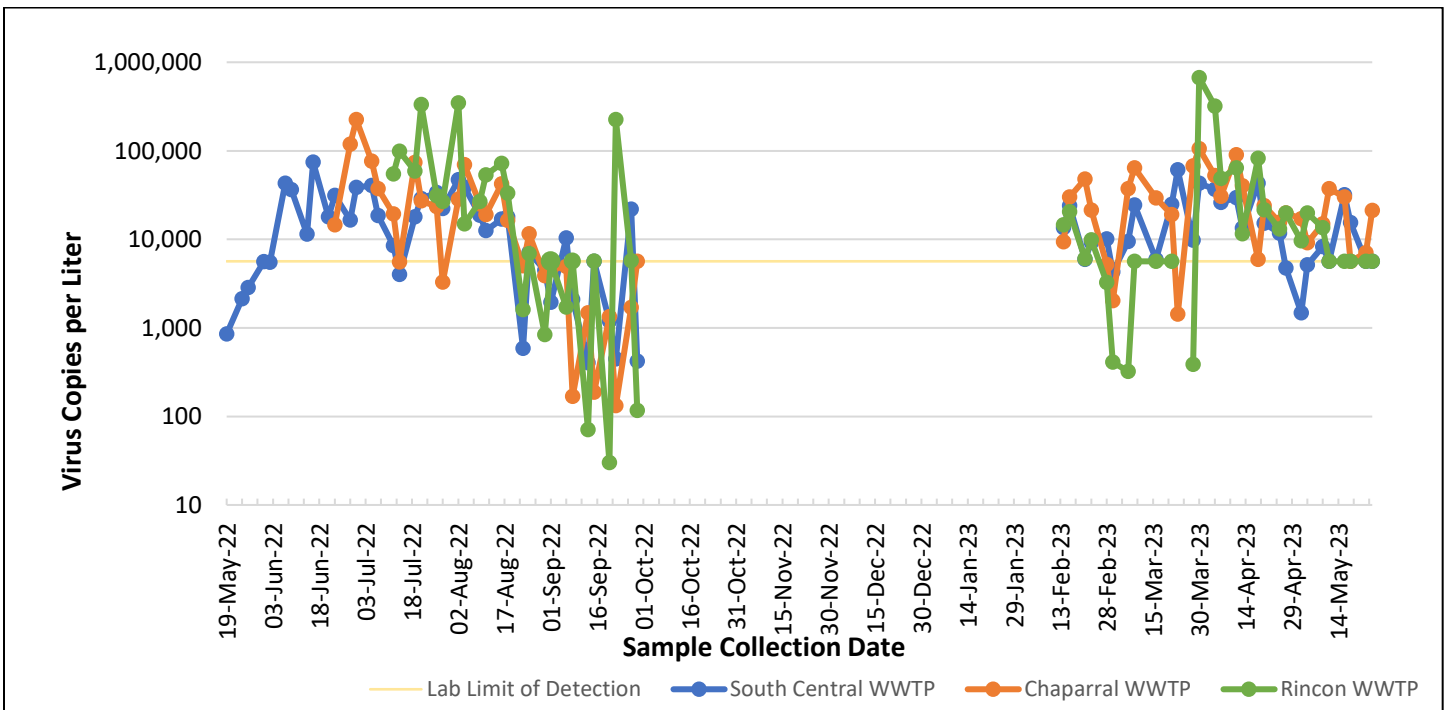
0 20 40 80 120 160 Miles

Rio Rancho



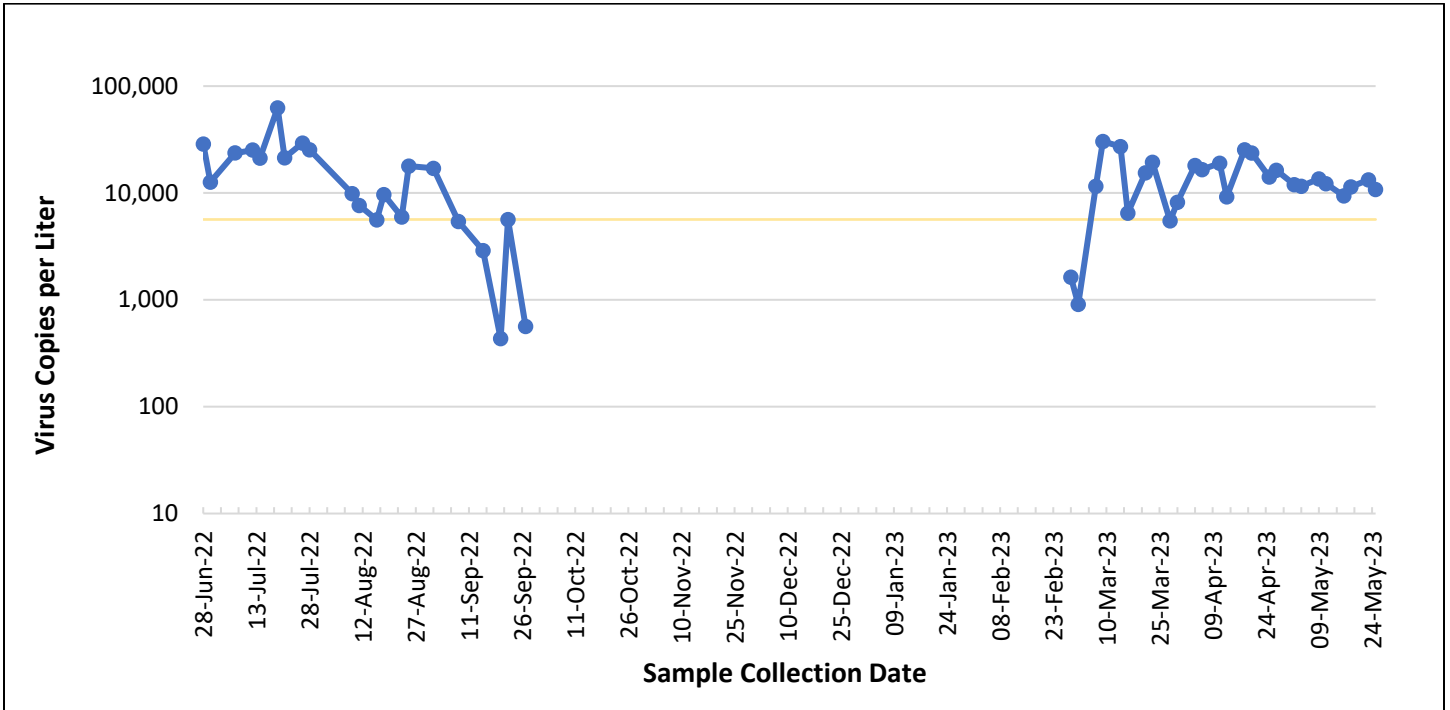
The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Results at or below this value should be interpreted with caution.

Doña Ana County



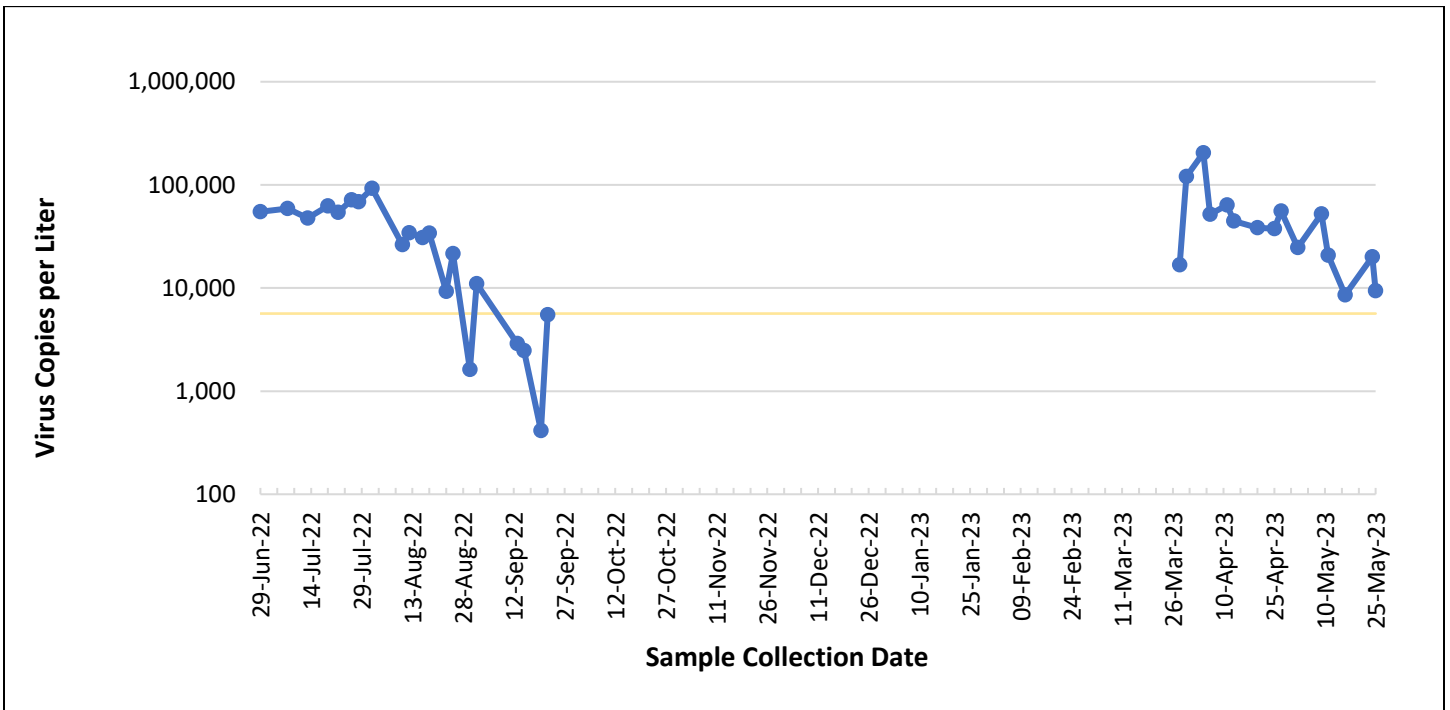
The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Non-detect results are plotted at the laboratory detection limit and results at or below this value should be interpreted with caution. Sampling was not conducted from 9/28/22 to 2/14/2023.

Roswell



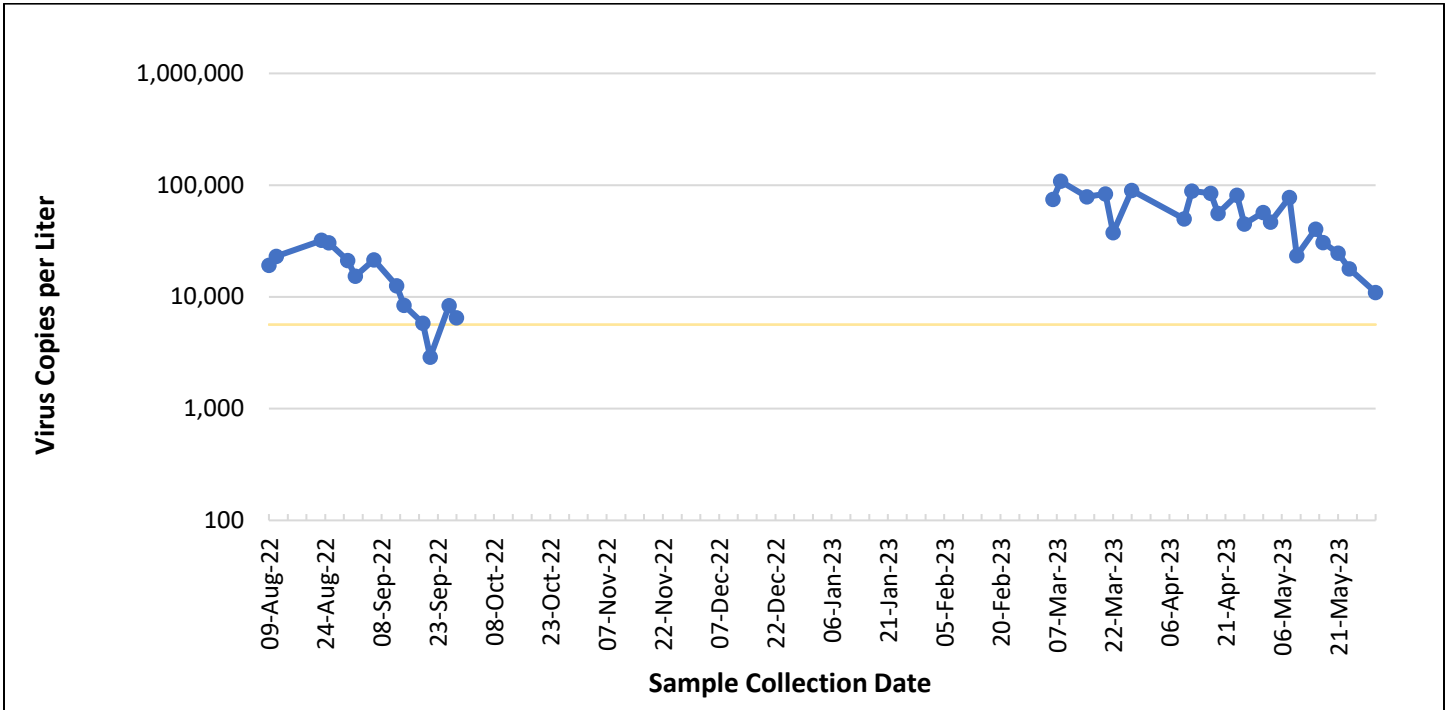
The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Non-detect results are plotted at the laboratory detection limit and results at or below this value should be interpreted with caution. Sampling was not conducted from 9/27/22 to 2/28/2023.

Deming



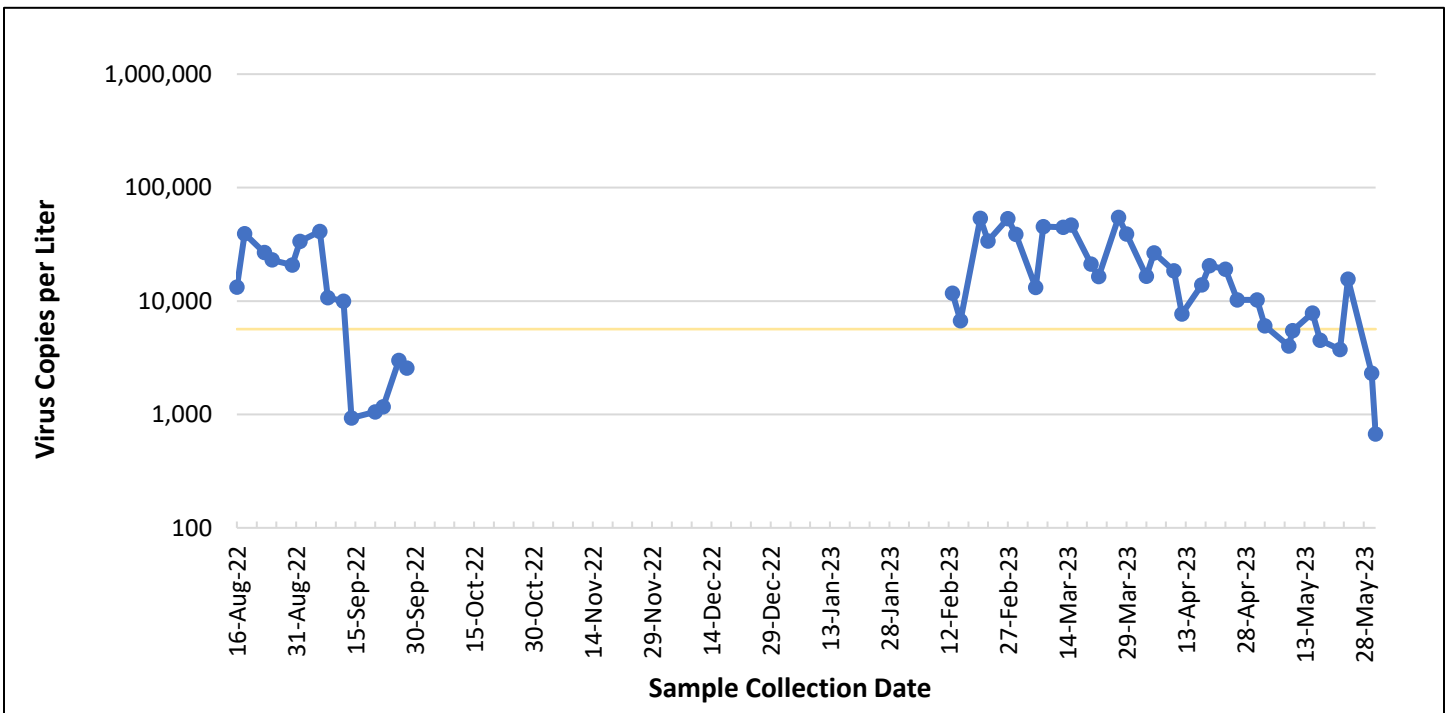
The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Results at or below this value should be interpreted with caution. Sampling was not conducted from 9/22/22 to 3/28/2023.

Farmington



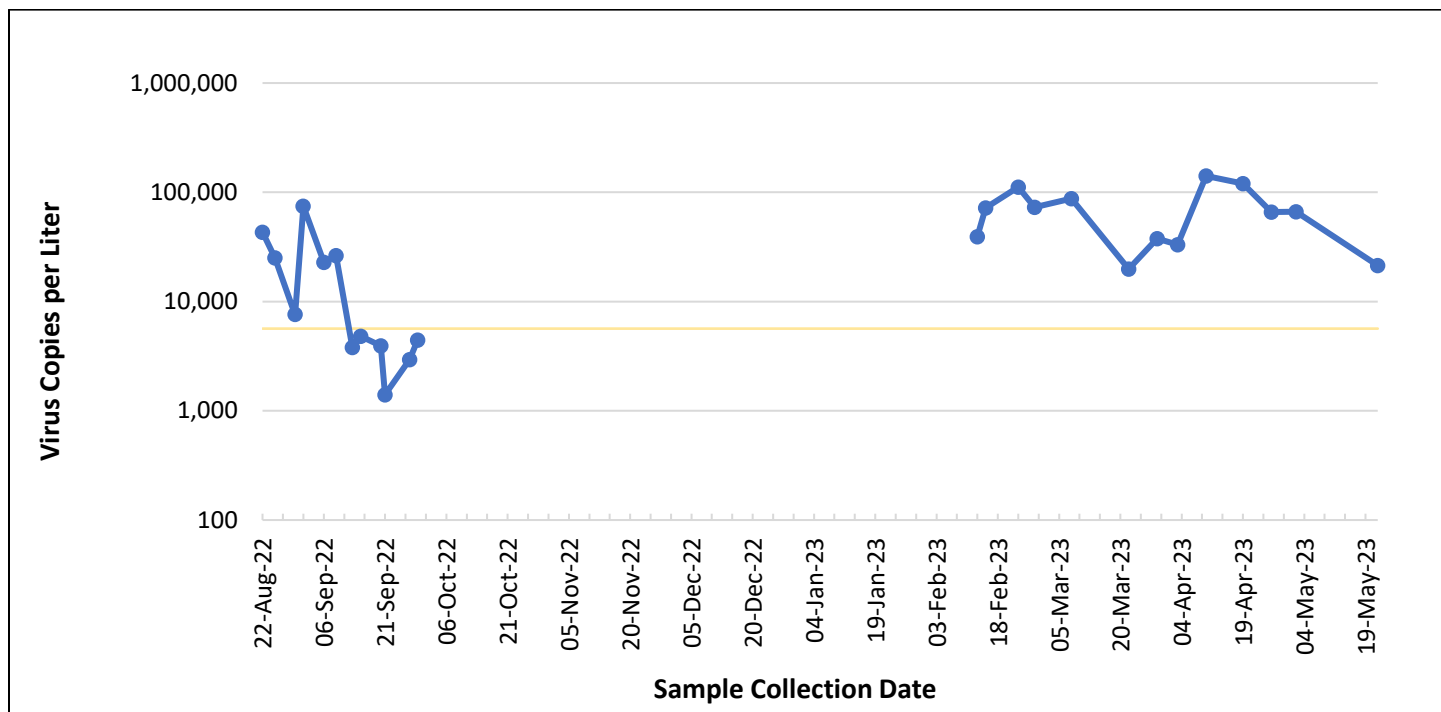
The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Results at or below this value should be interpreted with caution. Sampling was not conducted from 9/28/22 to 3/6/2023.

Alamogordo



The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Results at or below this value should be interpreted with caution. Sampling was not conducted from 9/28/22 to 2/13/2023.

Gallup



The laboratory limit of detection (5,650 copies per liter) is represented by the yellow line. Results at or below this value should be interpreted with caution. Sampling was not conducted from 9/29/22 to 2/15/2023.

Data Sources

- The results reported here were provided by the NMDOH SLD, located in Albuquerque. The SLD is the sole public health, environmental, and drug laboratory for the state.
- Additional information on wastewater monitoring for SARS-CoV-2 can be found at CDC's National Wastewater Surveillance System website: <https://www.cdc.gov/healthywater/surveillance/wastewater-surveillance/wastewater-surveillance.html>.

Data Notes

- Wastewater results from NMDOH SLD are reported in gene copies per liter of wastewater. The laboratory method limit of detection is 5,650 copies/L; occasionally results lower than this value will be reported, which should be interpreted cautiously as COVID-19 was detected but not quantifiable.
- Wastewater monitoring data are most useful when results are compared over time within the same community and combined with other sources of COVID-19 surveillance data. Each wastewater treatment plant serves a different number of people and collects wastewater from a unique segment of the population. Because of this, comparing the number of virus copies per liter between communities without adjusting for these differences does not yield useful information.