

Crystalline Silica Dust

Expert Reporting – Respirable Particulate by Dr. Tem Fugit, 08–7-2025

Summary - 2023?

RESPIRABLE PARTICULATE ANALYSIS AT AP&S GRAVEL QUARRY

FAIN/McCormick, Inc.

Date of testing: 01/25/2023

Job # 000A-9BK*** (report from Traveler's Insurance)

Media Type: PPI PVC-preweighted

Note: Data collected on-sight using strap on monitors over an 8-hour workday when the greatest HEALTH RISK for workers exists.

Analyte 1: Silica/crystalline Cristobalite using TIC- X-ray Diffraction:

-Method Reporting Limit (MRL) = 5 µg (micrograms) of mass

-OSHA Permissible Exposure Level with time weighted average (TWA) over 8 hours = .05 mg/m³

-AP&S result = .0057 mg/m³

-Note: their level was almost 1/10th of the permissible level and 1/4th of OSHA Action Level.

Analyte 2: Silica/Crystalline Quartz using TIC-X-ray Diffraction

-Method Reporting Limit = 10 µg (micrograms) of mass

-OSHA Permissible Exposure Level with time weighted average (TWA) over 8 hours = .05 mg/m³

-AP&S result = .011 mg/m³

-Note: Their level was between 1/4th to 1/5th of the permissible level and 1/2 of OSHA Action Level.

Analyte 3: Particulates Not Otherwise Regulated: N/A

Analytical Method: TIC-GRV (gas releasing volatile) = 100 µg

Note: Any samples with a respirable total particulate result below the MRL of 100 µg cannot have a weight % of any form of crystalline silica reported.

Conclusion: AP&S passed their inspection by wide margins. It is noted this testing was done prior to the ADEQ violation dated 11/7/2023. The citation required installation of a new 900-piece Baghouse at the concrete plant using a vacuum system to remove particulate. This demonstrates the industry's commitment to employee health and respect for the nearby community. It is also noted that sound levels from an operational standpoint were 50% BELOW the OSHA PEL of 90 decibels (dBA) as a TWA.

Summary prepared by Dr. Tem Fugit (Stoneridge) 08/07/2025. Records were provided by AP&S.