

# Misael Cabrera

ADEQ  
Groundwater Section  
1110 West Washington Street,  
Phoenix, AZ 85007

Re: Comment on South32 Hermosa APP amendment, Permit No. 512235

To whom it may concern:

I would like to submit this letter in support for the amendment to the existing Aquifer Protection Permit for the South32 Hermosa project. As someone who has spent nearly three decades working in the environmental field, I feel that it is important to support responsible mineral producers in supplying energy transition materials domestically. South32 is one of the most responsible mineral producers I have encountered during my career, which includes serving as the Director of the Arizona Department of Environmental Quality (ADEQ) until 2023.

When I became Director of ADEQ in 2015, I discovered that a previous and unrelated mine operator had settled with the US EPA during bankruptcy, leaving the environmental liability of multiple mine sites to the State with insufficient resources to effectuate clean-up. The State was fortunate that the Hermosa Project took interest in one of those sites. Hermosa dried and moved more than 2 million tons of old tailings material that was sitting on bare land to a modern, lined, and permitted impoundment. Hermosa also channeled stormwater run-off and tailings underdrain collections to a state-of-the-art water treatment plant. The total cost of remediation is reported as \$30 million. The Hermosa project has transformed a state environmental liability into an economic opportunity that will also produce two federally designated critical minerals – manganese and zinc – both of which are essential minerals for powering the nation's clean energy future. Hermosa's sustainability efforts are not limited to voluntary clean-up of past operators' impacts. They are committed to biodiversity, conservation, water stewardship, and renewable energy.

The proposed amendment will allow for the expansion of the existing tailings facility, which is needed to allow the project to begin its operations, which will bring significant economic benefits to the county and surrounding regions. I fully support ADEQ issuing the amendment for the following reasons:

- The South32-Hermosa project will employ cutting-edge technology that filters tailings before stacking, which limits seeping potential, increases slope stability, and conserves water.
- South32 has designed the tailings facility in a manner that not only meets ADEQ requirements but also the International Council on Mining and Metals guidelines [1];
- The amendment voluntarily increases the frequency of monitoring of surface water discharges (monthly rather than quarterly);
- The amendment calls for an increase in the number of piezometers to monitor the tailings facility and the associated collection pond;
- The amendment voluntarily calls for an increase in required financial assurance;
- The facility is in compliance with the current permit, based on the May 2024 inspection report included on the ADEQ project webpage.

The amendment should be granted because the facilities will meet or exceed all legal requirements. Further, this amendment should be granted because responsibly sourced minerals are prescient for our nation's energy transition, economy, and national security.

Sincerely,

Misael Cabrera, PE

[1] International Council on Mining and Metals - Global Industry on Tailings Management:  
<https://www.icmm.com/en-gb/our-principles/tailings/global-industry-standard-on-tailings-management>