

**From:** [John Peterson](#)  
**To:** [DHONT, JEFF](#)  
**Cc:** [Mike Gronseth](#); [John Peterson](#)  
**Subject:** Iron King Mine - Humboldt Smelter Dam Stability Technical Memorandum  
**Date:** Friday, June 21, 2019 2:53:15 PM  
**Attachments:** [ikmhs\\_adeq\\_comments\\_draft\\_dam\\_stability\\_tm\\_21\\_june\\_2019.pdf](#)

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Jeff,

ADEQ and our contractor Matrix Design Group reviewed the following document prepared by Tetra Tech for US EPA:

- *Iron King Mine-Humboldt Smelter Dam Stability Technical Memorandum.*

ADEQ comments are included in the attached PDF. If you have any questions or need additional information, please contact me.

ADEQ may add or amend ADEQ comments if evidence to the contrary of our understanding is discovered; if received information is determined to be inaccurate; if any condition was unknown to ADEQ at the time this document was signed or electronically delivered; if other parties bring valid and proven concerns to our attention; or site conditions are deemed not protective of human health and the environment within the scope of this Department.

## John Peterson

Project Manager, Federal Projects Unit  
Waste Programs Division  
Ph: 602-771-2234



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Douglas A. Ducey  
Governor

# ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera  
Director

June 21, 2019  
FPU 19-254

Mr. Jeffrey A. Dhont  
U.S. Environmental Protection Agency, Region IX  
75 Hawthorne Street Mail Stop SFD-6-2  
San Francisco, CA 94105

Re: *Draft Iron King Mine – Humboldt Smelter Dam Stability Technical Memorandum* dated  
19 June 2019.

Dear Mr. Dhont:

The Arizona Department of Environmental Quality (ADEQ) reviewed the above-referenced document and has the following comments:

## GENERAL COMMENTS

1. This technical memorandum references and takes input parameters for the evaluation from a draft memorandum entitled *Iron King Mine – Geotechnical Analysis Main Tailing Pile and Chaparral Gulch Dam* dated 05 January 2017 prepared by CDM-Smith. It would be beneficial to have the referenced CDM-Smith memorandum included as an attachment to this evaluation for completeness.
2. Results of calculations are presented in tables included in the technical memorandum. Please provide the calculations as an attachment to this technical memorandum.

## SPECIFIC COMMENTS

1. **Page 2, Section 3.1, First Paragraph, First Sentence:** The text states that "...a remedial alternative for the dam that assumes removal of sediment and tailings behind the dam." Please add text to make it clear if the alternative includes full or partial removal of the sediment and tailings behind the dam or provide figures that illustrate the assumptions used in the analysis.
2. **Page 3, Table 2:** The title of the table includes the word "PETE". Please define the term "PETE".

If you have any questions or need additional information, please contact me at 602-771-2234 or [peterson.john@azdeq.gov](mailto:peterson.john@azdeq.gov).

Sincerely,

A handwritten signature in blue ink that reads "John Peterson". The signature is written in a cursive style with a large initial "J".

John Peterson  
Project Manager  
Federal Projects Unit

cc: Mike Gronseth, Matrix Design Group