

18 February 2022

To: Water Pollution Control Permittees
From: Rob Kuczynski, Acting Chief
Bureau of Mining Regulation and Reclamation
Re: Update and Revision: Modification to Profile 1 Parameter list

On 24 August 2021, the Bureau of Mining Regulation and Reclamation (BMRR) issued a memo titled “Modification to Profile 1 Parameter List” describing addition of uranium (dissolved) to the Profile 1 parameter list.

This update is being issued to revise and supersede the BMRR’s 24 August 2021 notification regarding Profile 1 as follows:

Effective 1 July 2022, BMRR is revising the Profile 1 parameter list to replace uranium (dissolved) with uranium (total). Uranium shall be analyzed using EPA 200.8 (ICP-MS). This revision is a result of additional research of radiological analyses and the determination that the analysis of dissolved uranium does not meet the goals of establishing background data for naturally occurring radioactive materials (NORMs) in order to address additional closure criteria and bonding costs, if necessary, in the event that technologically enhanced NORMs (TENORMs) are generated and/or present at site closure at levels exceeding NDEP reference values.

Profile 1 consists of the following parameters:

| General Chemistry (Unfiltered) |
|---------------------------------------|
| Acidity (as CaCO ₃) |
| Alkalinity (as CaCO ₃) |
| Alkalinity (Bicarbonate) |
| Alkalinity (Total) |
| Chloride |
| Fluoride |
| Nitrate + Nitrite (as N) |
| Nitrogen, Total (as N) |
| pH (± 0.1 Standard Units) |
| Sulfate |
| Total Dissolved Solids |
| WAD Cyanide |

| Metals (Dissolved, Filtered) | |
|-------------------------------------|-----------|
| Aluminum | Mercury |
| Antimony | Potassium |
| Arsenic | Selenium |
| Barium | Silver |
| Beryllium | Sodium |
| Lead | Thallium |
| Manganese | Zinc |
| Magnesium | |

Uranium (total) is also tested.

Dissolved metals are filtered at 0.45 micrometers (µm); total metals are unfiltered, preserved, digested, and analyzed.

The following criteria for uranium analysis apply:

- If results of the uranium (total) analyses indicate a concentration ≥ 0.030 milligrams per liter, the Division will then require a Profile R analysis for the next quarterly sampling event.

The complete Profile 1 and Profile R parameter lists including reference values will be posted on the Division website at: [Regulation Branch Guidance Documents](#)

If you have any questions regarding his notification, please contact Karl McCrea, (775) 687-9407, kmccrea@ndep.nv.gov or Natasha Zittel, (775) 687-9413, nzittel@ndep.nv.gov