

STATE OF
COLORADO

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Technical Revision 37 Adequacy Review Permit M-1977342

1 message

Gagnon - DNR, Nikie <nikie.gagnon@state.co.us>

Tue, Feb 4, 2025 at 12:29 PM

To: "Bates, Ben" <bbates1@fmi.com>, "Hamarat, Miguel" <mhamarat@fmi.com>

Hello.

Please see the attached adequacy review letter for Technical Revision 37 - Groundwater Management Plan.

Let me know if you have any questions on this.

Kind regards,

Nikie Gagnon
Environmental Protection Specialist**COLORADO**
Division of Reclamation,
Mining and Safety
Department of Natural Resources

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nikie.gagnon@state.co.us | <https://www.drms.colorado.gov>**M1977348_Henderson_TR37_Adequacy Review.pdf**
238K



February 4, 2025

Miguel Hamarat
Climax Molybdenum Company
P.O. Box 68
Empire CO 80438

**Re: Climax Molybdenum Company; Henderson Mine, Henderson Mill, Permit No. M-1977-342,
Technical Revision No. 37, Groundwater Management Plan Revision Adequacy Review**

Dear Mr. Hamarat:

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the contents of Technical Revision 37 (TR-37) received on December 17, 2024, and submits the following comments.

1. Appendix C Figures 1-3 Site Diagrams: The diagrams for the Mine and the Mill do not show the permit boundary. Please revise the maps to display the permit boundary rather than the property boundary. Please also use different symbols for groundwater and surface water monitoring locations.
2. Appendix C Figures 1-3 Site Diagrams: Monitoring well MLGW-37 replaces MLGW-ACR for the POC for domestic water supply standards. The map shows this well constructed within the property boundary. Is the well located outside the permit boundary and/or the affected area boundary? Please show the GW flow direction in the area of this well on the site diagram.
3. What is the status of MLGW-ACR. Will this well be plugged and abandoned? Additionally, is the Colorado Water Quality Control Division aware of the new location for the monitoring well?
4. Section 3.1.6.1 POC Groundwater Monitoring Locations: According to the May 2024 Annual Monitoring Report submitted to the Division, a new monitoring well was installed in 2023 adjacent to POC well MNGW-1, within the same geohydrologic setting downgradient of the mine operations. This well was constructed to investigate the relationship between low pH at No Name Gulch and the groundwater chemistry measured at MNGW-1.

Additionally, in a May 27, 2022 adequacy response, Henderson stated that supplement sampling surveys along No Name Gulch (NNG) are needed to better evaluate any trends and understand the factor(s) causing the pH levels measured in NNG and MNGW-1. Henderson indicated the additional evaluations would be presented in a future submittal. Please update Section 3.1.6.1 in the Groundwater Management Plan to describe the new monitoring well and subsequent evaluations. Additionally, please submit a copy of the well completion details, well permit, and monitoring data collected to date to the Division.

5. Sections 3.1.6.2 and 3.2.6.2 Internal Groundwater Monitoring Wells. The text states that Henderson will continue to monitor key internal monitoring wells on a routine basis as part of its



overall water monitoring program. Please submit maps displaying the referenced internal monitoring wells at the Mine and the Mill and show the extraction wells installed at the Mill.

6. Section 4.1 and Table 4-1 Indicator Parameters identifies parameters that have a reasonable potential of being transported from mining materials to surface and groundwater systems. The rationale for the indicator parameter selection describes pH monitoring as an instantaneous snapshot of physical field data. Henderson is proposing a NPL range for pH of 5.9-8.5 for POC wells MLGW-7, MLGW-15 and MLGW-17 downgradient from the Mill. What would be an indicator of seepage from the Mill measured by pH values?
7. Section 5.1.1 Table 5-1 presents the Numeric Protection Limits for MNGW-1. According to the table, the NPL for pH is 6.5-8.5. Monthly groundwater quality measurements at MNGW-1 routinely show exceedances of the pH NPL. According to Section 5.3 Notification and Consultation on page 23 of the Plan, Henderson is required to notify DRMS of NPL exceedances. A review of the permit file shows the operator is complying with this requirement. However, the text in Section 5.4 states, "if a trend suggests increasing concentrations in parameters, Henderson will evaluate downgradient data, consider potential sources or causes of the trend and if necessary, develop a plan for increased monitoring or further actions." Please provide a summary of the investigations to date and update the Division on findings and mitigation strategies.
8. Section 6.1 Henderson Mine Table 6-1 presents the Mine Monitoring Frequencies and shows samples are collected 3x/year at MNGW-1. However, Henderson is conducting monthly sampling of MNGW-1 for pH. Please add a footnote to Table 6-1 to show this revised monitoring frequency.
9. Appendix K Section 2.1 Site Selection states that MLGW-37 will be representative of domestic water supply well conditions in the William's Fork River Valley, and POC wells 15 and 17 will monitor for potential impacts from the TSF and Mill. Please provide a discussion about if impacts were to be detected in MLGW-15 and/or MLGW-17 how long would it take for those impacts to arrive at MLGW-37. Include a discussion about possible dilution occurring over the approximately 2-mile distance between the wells.

This completes the Division's adequacy review. The decision date for TR-37 is February 15, 2025. If additional time is needed to address the adequacy items, please submit an extension request prior to the decision date. If you have any questions, please contact me at nikie.gagnon@state.co.us or (720)527-1640.

Sincerely,


Nikie Gagnon
Environmental Protection Specialist

Ec: Jared Ebert; Division of Reclamation, Mining and Safety