

Via U.S. Mail

July 30, 2009

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EPA REGION 5

Dr. Stephen Roy
UIC Branch (WU-16J)
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Reply to Kennecott Eagle Minerals Company's ("KEMC") March 18, 2009 "Response" to the January 15, 2009 "Comments of the Keweenaw Bay Indian Community in Opposition to the Issuance of an Underground Injection Control Permit to Kennecott Eagle Minerals Company (Application No. MI-103-5W20-0002)" ("Comments")

Dear Dr. Roy:

On behalf of our client, the Keweenaw Bay Indian Community (the "Community"), we are writing to address KEMC's March 18, 2009 Response to the Community's Comments. KEMC's Response erroneously asserts that the Comments are identical to arguments that were "rejected" by the Michigan Department of Environmental Quality ("MDEQ"), and further, again erroneously, asserts that those arguments were rebutted during a contested case hearing over KEMC's proposed Michigan groundwater discharge permit. As the information provided in this letter should make clear to the United States Environmental Protection Agency ("EPA"), KEMC's assertions are without merit. The Comments are *not*, in fact, identical to the Community's arguments in the contested case hearing. In addition, KEMC failed to rebut any of the points that were raised by the Community during the course of the hearing. Furthermore, MDEQ has not "rejected" any of the Community's arguments because no final or even preliminary decision has yet been issued in the contested case.

First, the Comments do not merely reiterate the same arguments that were presented by the Community at the contested case hearing. The Comments include the following analyses and modeling that were not addressed at the contested case hearing:

- **Comments Section 4.1.2, pp. 4-17 – 4-18:** Analysis of new KEMC information concerning the continuity of the low-permeability layers around the treated water infiltration system ("TWIS") and the effect of those layers on the infiltration of the discharge. KEMC submitted this information to EPA

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after the close of the contested case hearing.¹ The Community's analysis shows that KEMC's conclusions about this information are not supported by KEMC's new data, and the extent and impact of the low-permeability layers around the TWIS are still highly uncertain. Consequently, KEMC has not presented sufficient data with which to adequately assess the impact of the TWIS discharge.

- **Comments Section 4.5, pp. 4-32 – 4-40:** The Community's own modeling of the TWIS discharge, which was prepared after the close of the contested case hearing. This modeling demonstrates that KEMC's TWIS infiltration tests were deficient and mounding from the TWIS discharge will reach the ground surface.
- **Comments Section 4.7, pp. 4-46 – 4-48:** Analysis of new KEMC groundwater quality data, which KEMC submitted to EPA after the close of the contested case hearing. This new data confirms that the underground sources of drinking water around the TWIS are high quality and that the shallow aquifer cannot be relied upon to contain or attenuate contaminants present in the TWIS discharge.

Moreover, the Comments analyze KEMC's Underground Injection Control ("UIC") proposal in light of applicable UIC requirements, not the Michigan groundwater discharge requirements which are at issue in the contested case. Given that KEMC's Response relies wholly on KEMC's Post Hearing Brief from the contested case ("Post Hearing Brief"), KEMC's Response to the Comments does not even address, much less rebut, the above-mentioned new analyses, modeling and other UIC requirement-related issues addressed in the Comments, because those facts and issues were not covered in the contested case.

Second, to the extent that certain issues raised in the Comments were also addressed at the contested case hearing, KEMC failed to rebut or to expose flaws in any of the Community's arguments at the hearing. The Post Hearing Brief enclosed with KEMC's Response is simply an advocacy brief intended for the Administrative Law Judge ("ALJ") in the contested case that mischaracterizes the Community's evidence and testimony in the contested case and glosses over the serious deficiencies in KEMC's groundwater discharge permit application. In reality, KEMC's purported "rebuttals" are wholly ineffective, and the record established in the contested case hearing conclusively demonstrates that a groundwater discharge permit cannot be issued to KEMC. To that end, although we believe that EPA's consideration of the Comments should not require a review of materials from the contested case, we have enclosed a disc containing the

¹ The contested case hearing was closed on August 6, 2008. As discussed below, a proposed decision in the contested case has not been issued as of the date of this letter.

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Community's "Proposed Findings of Fact and Conclusions of Law Concerning Groundwater Discharge Permit No. GW1810162" ("FOF/COL"), along with relevant transcript volumes and exhibits, from the contested case.² The following sections of the FOF/COL address issues that are raised in the Comments and/or the KEMC Post Hearing Brief excerpts that were referenced in KEMC's Response:

Mine and Wastewater Treatment Plant ("WWTP") Inflow Volume

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| Section VI.A., pp. 27-28: | Basis of KEMC's inflow estimates. |
| Section VI.A.1., pp. 28-49: | KEMC's inadequate data collection, characterization, and conceptualization of the bedrock groundwater system. |
| Section VI.A.2., pp. 49-53: | KEMC's inadequate data collection, characterization, and conceptualization of the unconsolidated (quaternary) groundwater and surface water systems. |
| Section VI.A.3., pp. 53-70: | KEMC's deficient inflow modeling, MDEQ's inadequate review thereof and the Community's alternative inflow modeling showing that much higher inflows will occur. |

WWTP Inflow Quality

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| Section VI.B., pp. 71-72: | Basis of KEMC's WWTP influent quality estimates. |
| Section VI.B.1., pp. 73-74: | Basis of KEMC's mine drainage quality estimates. |
| Section VI.B.1.a., pp. 74-75: | Sulfide mines create significant water quality issues. |
| Section VI.B.1.b., pp. 75-79: | KEMC's flawed geochemical testing. |
| Section VI.B.1.d., pp. 84-87: | KEMC's inaccurate prediction of mine drainage quality during mining and the Community's alternative prediction. |
| Section VI.B.2., p. 87: | Basis of KEMC's temporary development rock storage area ("TDRSA") drainage quality estimate. |
| Section VI.B.2.a., p. 88: | KEMC's insufficient geochemical testing of TDRSA rock. |
| Section VI.B.2.b., pp. 88-90: | KEMC's inaccurate prediction of TDRSA drainage quality and the Community's alternative, and more accurate, prediction. |

² The Community filed the FOF/COL in cooperation with other interested parties who joined in the contested case. Together, those parties (including the Community) are referred to in the document as "Petitioners." For purposes of this letter, evidence presented collectively by Petitioners at the contested case is referred to herein as evidence presented by the Community.

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(WWTP Inflow Quality)

- Section VI.B.3., pp. 90-96: Specific rebuttals of KEMC's and MDEQ's criticisms concerning the Community's alternative predictions.
- Section VI.B.4., pp. 96-105: KEMC's consultant's admissions that he had not even attempted to accurately estimate mine or TDRSA drainage quality and the implications of that significant omission.
- Section VI.B.5., pp. 105-106: KEMC's inaccurate composite WWTP influent quality calculations.

WWTP Treatment Issues

- Section VI.C., pp. 107-109: Description of KEMC's proposed treatment processes.
- Section VI.C.1., pp. 109-111: Response to KEMC's credibility/bias arguments concerning the Community's WWTP expert.
- Section VI.C.2., pp. 111-112: Specific treatment challenges posed by KEMC's wastewater.
- Section VI.C.3., pp. 112-113: KEMC's description of treatment methods omits information that is essential to determine whether the wastewater will be successfully treated.
- Section VI.C.4., pp. 114-116: KEMC's WWTP is novel, complex, untested, and unfinalized and will have significant treatment problems.
- Section VI.C.5., pp. 116-117: The WWTP is not designed to accommodate the likely volume of WWTP influent.
- Section VI.C.6., pp. 117-120: Treatment will not be effective and permit limits will be exceeded if WWTP influent quality is worse than expected.
- Section VI.C.7., pp. 120-121: KEMC's inadequate contingency measures.
- Section VI.C.8., pp. 121-122: MDEQ's inadequate review of KEMC's proposed WWTP.

TWIS Discharge and Downgradient Issues

- Section VII., pp. 124-125: Background on KEMC's hydrogeologic investigation in the area of the TWIS and related TWIS discharge modeling.
- Section VII.A.1., pp. 125-128: KEMC's hydrogeologic data collection focused on the wrong areas and its conclusions are extrapolated.

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(TWIS Discharge / Downgradient Issues)

- Section VII.A.2., pp. 128-129: KEMC's hydrogeologic investigation omits information that is essential to determining the acceptability of the discharge.
- Section VII.A.3., pp. 129-136: KEMC's inadequate and inaccurate characterization and conceptualization of the hydrogeologic data it collected.
- Section VII.B., pp. 136-144: KEMC's deficient TWIS discharge modeling and related mounding and flow predictions.³
- Section VII.C., pp. 145-146: MDEQ's serious errors in reviewing KEMC's hydrogeologic investigation and related TWIS modeling.

Other Issues

- Section VIII., pp. 147-154: The groundwater discharge permit limits violate applicable standards and are not protective of groundwater or surface water.
- Section IX., pp. 155-158: The proposed monitoring system will not adequately assess the impact of the discharge.
- Section X., pp. 158-164: The groundwater discharge permit is not protective of surface water.

Third, as a review of the enclosed documents will show, in many instances KEMC did not even attempt to rebut serious errors that were raised in both the contested case and the Community's Comments. These include, among others: (1) the inherent unreliability of KEMC's hydraulic testing methods, which resulted in flawed data and inaccurate conceptualization and modeling of mine inflows; (2) the undisputed fact that KEMC's WWTP cannot handle inflow volumes greater than its design capacity, which the Community proved is likely to occur; and (3) the fact that KEMC failed to collect any hydrogeologic data in the critical area between the TWIS discharge point and the presumed venting point of the discharge, and instead extrapolated its conceptualization of that area, which has made it impossible to meaningfully assess the flow or mounding of the discharge. KEMC obviously cannot claim to have rebutted the Community's concerns where it did not even respond to those concerns.

³ KEMC's Post Hearing Brief incorrectly states that Dr. Gerald Eykholt prepared the numerical TWIS model (Golder, 2006) associated with KEMC's groundwater discharge permit application and testified in support of that model at the hearing. See KEMC's brief at 181. Dr. Eykholt actually prepared KEMC's simplistic and preliminary "analytical model," as is obvious from reviewing the documents linked in KEMC's own brief. *Id.* at 180-181; FOF/COL at 140. In fact, the preparers of the numerical model were not called by KEMC to testify at the hearing.

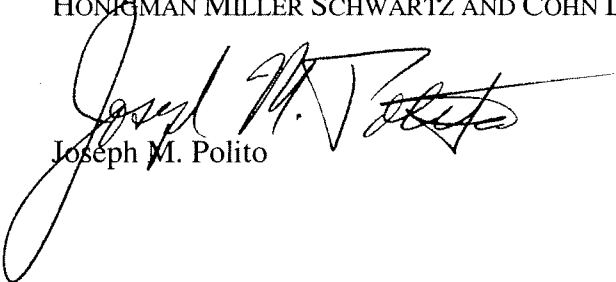
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Finally, contrary to KEMC's assertion, none of the Community's arguments from the contested case hearing have been "rejected" by MDEQ or by the ALJ who presided over the hearing. Again, no findings have been issued concerning the merits of the evidence presented at the hearing. At some point in the future, the ALJ will issue a "proposal for decision" evaluating the evidence presented at the hearing. The parties will then have an opportunity to file written "exceptions" (i.e., objections) to the proposal for decision and/or conduct oral argument before the MDEQ Director. The Director may adopt the proposal for decision, or may reverse, remand, modify, or set it aside. MDEQ's decision of whether to issue a groundwater discharge permit to KEMC⁴ and its views on the merits of the evidence presented at the contested case hearing will be embodied in the Director's final agency decision in the contested case.⁵ The final agency decision is then subject to appeal by the unsuccessful party or parties to the Circuit Court of the State of Michigan.

Please feel free to contact me with any questions concerning this letter or the enclosed materials.

Very truly yours,

HONIGMAN MILLER SCHWARTZ AND COHN LLP



Joseph M. Polito

Enclosures

c: John R. Baker, Esq.
Ross Micham

⁴ *Petition of Eldon E. Johnson*, p. 3-4 (File No. 07-15-0019-P, ALJ Mack, February 15, 2008) (a permittee subject to a contested case does not possess a permit, but rather, the review of the permit application is still under consideration). A copy of this decision is provided on the enclosed disc.

⁵ *See, e.g.*, Mich. Admin. Code R. 324.71 – 324.75. Copies of those rules are provided on the enclosed disc.