



Objection to Mine application M2017-049

1 message

Allyn Kratz <allyn.kratz@cmctu.org>

Wed, Dec 20, 2017 at 3:55 PM

To: amy.eschberger@state.co.us

Cc: Dave Nickum <dnickum@tu.org>, Daniel Omasta <DOmasta@tu.org>, Richard Luce <r.l.luce50@gmail.com>, Dave Leinweber <david@anglerscovey.com>, Terry Deaton <tfdeaton@msn.com>, Don Logelin <d2jm@msn.com>, John Fooks <johnfooks8@gmail.com>, CMCTU Board of Directors <cmctu.bod@cmctu.org>, Michele White Tumbling Trout <aubassoon@aol.com>, James McGill <jjmcgill28@gmail.com>, Mike Amacher <mkmchr181@gmail.com>, Colin Dunn <cphdunn@comcast.net>, Greg Guilfoil <soltack@yahoo.com>, Phillip Givens <wpgivens@gmail.com>, Kris and Anita McCowen <gkmccowen@gmail.com>

Hello Ms. Eschberger

Please find attached a copy of our objection letter to the mining application M2017-049 and attachment. I have also included a jpg file of the letter which includes my signature in case that might be an issue.

Thank you for your consideration to our objection to the mine permit being issued.

Allyn J Kratz
President
Pikes Peak Chapter of Trout Unlimited
719-641-4925

5 attachments



PPCTU objection to M2017-049 p1.jpg
2267K



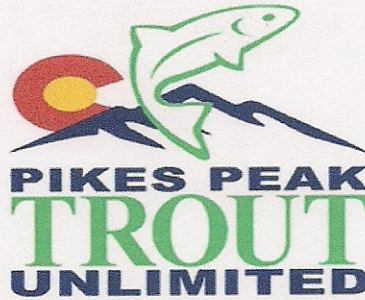
PPCTU Objection to M2017-049 p2.jpg
2238K



PPCTU Objection to M2017-049 p3 .jpg
2341K

PPCTU objection letter.doc
87K

Geotechnical Study M2017-049.doc
21K



December 17, 2017

Ms. Amy Eschberger
Colorado Division of Mining and Safety
1313 Sherman St. Room 215
Denver, CO 80203

Dear Ms. Eschberger;

I am writing on behalf of the more than one thousand members of the Pikes Peak Chapter of Trout Unlimited and as the result of a unanimous vote of the Board of Directors to object to the application by Transit Mix Concrete Co.'s (TM) application (M2017-049) to establish a quarry on Hitch Rack Ranch.

The Pikes Peak Chapter of Trout Unlimited has a mission to Conserve, Protect and Restore the cold water fisheries and their environs in the Pikes Peak Region.

This application (M2017-049) fails to protect the cold waters of Little Turkey Creek and their environs in so very many ways and we will set out many of those failures in this objection letter.

The first failure of this application is simple, it fails to even mention the trout that exist currently in Little Turkey Creek as a form of wildlife present in the application area. Nor does it mention any of the other aquatic forms of wildlife. The trout and all of these aquatic life forms will require cold clean water at all times. This application discusses ground water but fails to adequately address the surface water and its quality. When it does discuss ground water, the solution of ground water entering the mine area is to simply dump it into the stream. No consideration is provided for water quality, changes in pH, temperature, chemistry and/or sediment. There is not data provided as to the presence or absence of heavy metals in the mine application area. Based on the drawing contained within the application showing the horizontal mine boundary being proposed to be well below the current ground water level, the quantity of groundwater that will be required to be pumped will be far greater than de minimis.

The topographical maps contained in the application clearly shows a steep incline from the proposed mine area to the stream. Just normal rainfall will result in materials disturbed by the proposed mining operation will easily wash to the stream at a much greater rate than currently occurs. The many acres of denuded ground will provide a

Pikes Peak Chapter of Trout Unlimited
PO Box 458
Colorado Springs, CO 80901
www.ppctu.org

ready source of sediment materials to wash into the stream. Water studies performed in the area show sediment to be the greatest threat to stream populations of wildlife. What studies are contained within the application that support the idea that sediment from the mine will be prevented from entering the stream with only a 100 foot margin between the edge of the proposed mine area and the stream? This application continually downplays the possibility of an increase in surface flow of water due to the mining operations however, no data from any study is included within this application so support such a conclusion.

The proposal also contains plans to build an access road close to the stream. This access road is planned to be heavily used by the TM trucks and this will add additional sediment to the stream. It also appears that the plan is to stock pile "Top Soil" in areas topographically above the stream again providing a source for additional sedimentation to enter the stream.

This proposal also includes the placement of fines in a stockpile located in a currently existing ravine. A ravine created by moving surface water down a slope. The placement of this fines stockpile in this location guarantees these fines washing into the stream even under normal rainfall conditions.

In addition to our concerns about the surface water and the maintenance of its quality and quantity we have a geologist on our board of directors who has reviewed the application.

Michele White, V.P. Government Affairs, Pikes Peak Trout Unlimited and Certified Professional Geologist with American Institute of Professional Geologists, #11252, and author on multiple NI 43-101 compliant technical mining reports for the Canadian and United States Stock Exchange Commissions expressed the following:

In consideration of proposing to create a high wall mine in the vicinity of multiple regional faults – the intersection of which are within the pit – their geotechnical study is seriously inadequate. The drill hole data is included, however no analysis of the results are included within the application.

The "geotechnical study in exhibit 6.5" solely addresses overburden and soil. The report includes two geotechnical maps, none of which show geology. The geotechnical study was conducted by a mining engineer and did not utilize a certified professional geologist. They did not present a study of the bedrock or the geologic structures. One map shows that a geophysical survey was performed but there is no summary of what the data means.

The slope stability model and mine design is 100% reliant on assuming that the bedrock is stable. Yet, no bedrock stability analysis was conducted. The presence of multiple faults that intersect with regional fault zones within the area of interest should provide reason to believe that the bedrock stability is highly suspect. The geotechnical study is inadequate for addressing very real geological hazards in this area."

Where the application discusses a drilling program in 2015 and 2017, Michele writes:

"Details or summary of the drilling program are not provided, details such as how deep did they drill? What was the cohesiveness of the bedrock? Was there a geotechnical study of the bedrock in core? Did they collect rock:fractures ratio?"

The geotechnical report contained in the application states that the engineered design is based on the assumption that the bedrock is stable (static).

The soils stability model is based solely on the soil properties not the underlying bedrock. In addition it is 100% reliant on assuming that the bedrock is stable (static).

Michele White writes: The summary in the geotechnical report states that the model is not competent under changing conditions of ground water or material strengths (of bedrock).

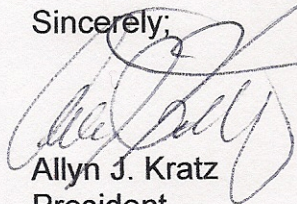
It is my opinion that it is really irresponsible to design an open pit mine and overlook the bedrock and regional structures in evaluation of hazards.

In summary, this proposal overlooks the adverse affects of geologic hazards, which are probably imminent in consideration that they will be excavating and blasting proximal to structural intersections of regional faults. In this light, I have included my analysis of the core data included within the application and accompanies this letter. (Exhibit: Geotechnical Study M2017-049. It is my conclusion that the degree of intense fracturing, brecciation, and faulting of rock observed in core indicates that the area of interest is highly likely to experience significant failure of the high wall over time if the area is mined by open pit.

In general, PPCTU is greatly concerned this application only pays minimal attention to the issues around surface water, the increase in flow due to the mining operations and makes no plan to address surface water other than to dump it along with its sediment into the stream. We have concerns about the lack of geological study and have included our own. Further, we have a concern that the maps and drawings provided in this application appear to be inconsistent with the words of the application in many areas, including but not limited to the boundary for the pit relative to the stream. In addition a great number of claims and assumptions are not supported by credible data.

For the above reasons the Pikes Peak Chapter of Trout Unlimited opposes the granting of this mining application. (M2017-049)

Sincerely,



Allyn J. Kratz
President

Summary of the Geotechnical Study: RQD and Geologic Core Logging

The drilling and core logging in the Exhibit demonstrated a thorough endeavor to analyze the geologic stability of the rocks in the area of interest - with the exception that the report did not summarize the significance of the observations. Here are some of the adverse features observed in the drilled core and explanations of how these features present a danger to high wall mining:

1. *Lithologies are predominantly foliated schists and gneiss. The significance is that foliation (minerals are aligned, oriented in one predominant direction) forms planar surfaces, which are conducive to slip, i.e. movement. The minerals in schist are "micas" (biotite, muscovite and clays – sheet silicates), which have weak structure – they shear.*
2. *Weathering – i.e. water percolates down fractures and oxidizes Fe⁺ resulting in iron stain, the degree of weathering emphasizes the degree of decomposition, alteration to clay, and structural weakness. The nearer to surface, the more likely the weathering / fracturing alteration to clay.*
3. *Parallel fractures create zones of weakness – breaking apart like books falling off a shelf. When overburden is removed, the parallel fractures zone open – expand, creating failures.*
4. *Vertical or open joint/fracture sets – innate danger to a high wall, as the over burden is removed, vertical fractures in the high wall expand and cause slumps and failures.*
5. *Slicks are scratches observed on fractured surfaces indicating slippage – movement, creep, faulting.*
6. *Breccia is broken rock that represents rupturing and movement along fractures and usually indicates strong brittle deformation, associated with faulting.*
7. *Vuggy – open holes, structurally weak.*
8. *Core loss or No Recovery (unless mechanically derived, such as from the drilling machine), insinuates incompetent rock, loose material, zone of structural weakness, and collapse.*
9. *Fault – a place where the rock will part, rupture, break, crumble unpredictably, difficult to control. The higher the angle, the more dangerous to the stability of a high wall.*
10. *Sand lenses – unconsolidated material – very weak.*

Here is a summary of the geologist's core logging observations per drill hole:

B1

Intensely fractured parallel to bedding 23-80, parallel fractures sets 190-211; intense fracturing 134-135, 145-155.

B2

Highly Fractured, intensely fractured, 80.

B3

Highly Fractured, weathered, No Recovery 20-22.

B4

Intensely fractured
No recovery

B5

Intense fracturing 7-19, 19-26, 26-65; parallel fractures 77-94, 94-97, 97-100; intense parallel fracture sets 110-191, 206-209, 215-250, open vertical joints 205-206.

B6

Major fractured zone 73-75; intensely fractured 100-108, 108-111, 111-114, 126-220, 144-145, 147-152. Fracture zone 209-211; intensely fractured 220-228.

HC001-15

Notes on log: "Drilled through a major fault zone" collapsed hole at 73. New hole: core loss, broken, fractures and slicks 281-285; intense fracturing 416-419. Badly broken breccia zone 429-434, 458-460; slicks 542-544; vertical joints and fractures, 583-585.

HC002-15

Vuggy, 121-123; Vertical joints and fractures, 53-55; 100-105; 135-139; 176-200; slicks 696-760.

HC003-15

Vertical fractures zone 188-195; broken (rubble) 600-609, breccia and slicks 770-775; major fault at 251; multiple parallel fracture zones about every 100' : 272-285; 361-376; 452; 537-542; 707-708; 775-776.

HC004-15

Core loss 72-75; high-angle fault 159.5; sand lenses; high-angle fractures and breccia 158-159; slicks and fracture zone 405-420; breccia and lost core 714-725; abundant fracture zones throughout.

HC005-15

Breccia zones in the 70's, fault gouge 599, rock is otherwise mostly cohesive granite in this hole.

HC006-15

Foliation of schist, gneiss, micas; fault gauge with slicks, 348.

HC007-15

Unconsolidated material 206-286; breccia and slicks zones 214-245, 221, 229, 251, 281; breccia 317-318; abundant high angle joint sets 345-350.

Conclusion:

In consideration that the area of interest includes intersections of multiple regional faults, the degree of fracturing and brecciation observed in core emphasizes the likelihood of a difficult, unstable pit wall to