



# MINISTRY OF TRANSPORT AND MINING



## MINES AND GEOLOGY DIVISION

ANY REPLY OR SUBSEQUENT REFERENCE TO THIS COMMUNICATION SHOULD BE ADDRESSED TO THE COMMISSIONER OF MINES NOT TO ANY OFFICER BY NAME AND THE FOLLOWING REFERENCE QUOTED:-

HOPE GARDENS  
P.O. BOX 141  
KINGSTON 6, JAMAICA, W.I.  
PHONE: (876) 927-1936-40  
FAX: (876) 977-1204  
E-MAIL: [commissioner@mgd.gov.jm](mailto:commissioner@mgd.gov.jm)  
WEBSITE: [www.mgd.gov.jm](http://www.mgd.gov.jm)

October 25, 2019

Mr. Peter Knight  
Chief Executive Officer  
National Environment and Planning Agency  
10-11 Caledonia Ave,  
Kingston 5

### **Re: EIA for Proposed Mining Operations in the SML 173**

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#### **BACKGROUND**

The Mines and Geology Division (MGD) is in receipt of the Environmental Impact Assessment (EIA) for proposed mining activities in SML 173 located in the parishes of St Ann and Trelawny. The proximity of SML 173 to the Cockpit Country Boundary presents unique challenges to the physical, biological and socio-economic environment. The EIA has however revealed that these impacts are negligible and reversible. Additionally, the EIA has provided clear measures to address the risks associated with mining in the area.

#### **COMMENTS**

The Mines and Geology Division notes that the main concerns highlighted by the residents include, but not limited to:

- Dust and compensation
- Loss of farmlands
- Issuance of land titles
- Loss of biodiversity
- Possible negative effects on the groundwater

Most of these issues were adequately addressed in the document. Nevertheless, all efforts must be made to reduce the negative socio-economic impacts that will arise from these mining activities.

The EIA identified several potential geological and geotechnical issues relating to:

- Haul road construction
- Erosion and potential slope failure
- Changes in drainage conditions of the site
- Increased runoff and sedimentation

The MGD is satisfied that the mitigation measures highlighted in the EIA will be sufficient to reduce the effects of these potential impacts. In addition to these measures, the MGD recommends the following mitigation measures be applied:

1. The gradient of haul roads should not exceed 10 degrees (17%), as moderate to low slope angle enables the safe and efficient manoeuvring of heavy machinery. Steep road gradient profiles exceeding 10 degrees (17%) should be limited to short intervals. Haul roads should also be cambered to facilitate the flow of storm water runoff.
2. The document indicated that slope cuts in excess of 6m will be benched. The decision to bench, as well as the bench design must however be guided by the geotechnical properties of the rock material (e.g. the degree of weathering, rock strength, extent of fracturing, etc.). Hence, more conservative bench designs (low bench height and wide berms) may be required where less competent material is encountered.
3. Where unstable slopes are encountered, it is recommended that a Rock Mass Assessment with associated Factor of Safety Analysis (FOS) be used to guide the bench design parameters (Bench Height, Bench Width, Batter Face Angle, and the Bench Width to Height Ratio).
4. There should be no mining in areas identified as sink holes. This will reduce the risk of blockages and potential flooding.
5. MGD recommends that the residence time of stockpiles on site be reduced during periods of heavy rainfall. This will reduce the risk of erosion and reduce storm water turbidity.

#### **OTHER COMMENTS**

1. The geology map (page 5-11) does not show all the formations listed in the Legend. The Legend items should be limited to the geology of the area focus area.
2. Section 5.1.4.2 (page 5-12) should not be titled "Structural Geology" and not "Geomorphology".

#### **DECISION**

The Mines and Geology Division recommends approval of the proposed mining activities in SML 173.

Yours truly,



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Canute Ricketts (Mr.)  
For Commissioner of Mines