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Mining Company

MEMORANDUM

Date: February 9, 2016
To: Howard Willison, CEO
From: Richard DeAvila, V.P., Acq.
Subject: COAL MINING METHODS AND THE YOSEMITE PROJECT

After careful analysis of the environmental effects our various coal mining methods have, it is becoming increasingly apparent that the Yosemite Project may ultimately be riskier than anticipated. The three most widely used methods of coal mining are open pit mining, contour mining, and auger mining. The type of mining that is applied is dependent on the type of terrain covering the coal. I will elaborate on each type of mining and their effects on surroundings, and give my opinion on whether this project should go through.

Open Pit Mining

This method of coal mining is most commonly employed in flatlands such as those in Oklahoma and Kansas, so it is unlikely this method will be used should the Yosemite Project materialize given the surrounding terrain of the proposed site. Long parallel rows of packed spoil banks are produced, with large pits in between that fill with water that create pollution and flood hazards. All of this is the result of the draglines and scoops that operate directly on the coal seams.



Contour Mining

Contour mining is widely used on mountainous terrains, and thus is the recommended method should we go forward with this project. The coal beneath is accessed by removing the wide bands of overlying layers of rock through explosions or bulldozing. This leaves behind shelves and manmade cliffs some sixty feet high. The blasted/mined rock is pushed off the shelf in a massive spoil bank that creates a risk of mudslide.



Auger Mining

Auger mining gets its name from the large augers that are used to drill holes into mountainsides. They are drilled in a parallel fashion, providing easier access to the coal beneath. This method is utilized when mountains are too thin to be stripped of coal or terrain access is difficult, and is the most environmentally friendly.



Should the Green Light be Given?

In the event of an accident, the financial and environmental costs will be tremendous. The safest method (auger mining) also happens to be inefficient for the current project, and the method with the most efficiency (contour mining) comes with the highest risk. Contour mining would be the only viable way the project could possibly succeed but it creates the risk of mudslides, which could be bad news near such a popular camping destination. Mining near the Yosemite National Park will be an expensive undertaking to begin with, and environmental groups are sure to mobilize against this project. Any mishap will evolve into a PR nightmare, increase risks of natural disasters, and cost the company too much money.