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a). i). The Mabo Judgement - deals with ~~lng~~ Indigenous Australians refusing to allow mining on a certain site, claiming that the land is their natural heritage.

ii). A decision has not yet been made, but if mining is prohibited in this site, valuable ore deposits will not be mined and will go to waste.

b). i) Cadia Hill gold mine - factors that need to be considered are the life span of the mine, and the grade of the ore.

Life span - if the ~~ma~~ mine has a short life span, it would not be worth mining and spending so much money operating the mine, as profits would be low.

Grade - if the ore is a low grade, it will not be highly valuable, ~~and feasibility of operating the~~ profits from the low-grade ore will not make up for the high feasibility of mining the deposit.

ii). One government policy is the maintenance of water quality. While mining, waste

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materials may enter the rivers and waterways, ~~eventually entering~~ killing aquatic life and eventually entering drinking water systems. This policy has ~~of~~ affected the decision to mine at Cadia Hill, but after agreeing to regularly monitor water quality, the mining was allowed.

c). Little profit was made when the mine had first opened for the first few ~~a~~ years. Gradually profits increased in the 90s when the mine's lifespan was coming to an end. From the data, we can conclude that prices of zinc increase when supplies are running low, but decrease when supplies are high.

d) i). Magma contains rich sources of different ions, so when the plume of the smoke falls to sea water, it reacts with the rocks found deep beneath the sea. As a result, base metal mineral deposits are formed.

ii). One exploration method studied is diamond bit

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drilling, which requires drilling deep in the ground to extract samples of ore for analysis. This method would not be suitable to locate mineral deposit in an ancient island arc setting, ~~at~~ as it involves high levels of air and noise pollution and ~~may~~ extreme vibrations. This will ~~impact~~ greatly ~~to~~ impact aquatic life.

e). The deposit studies is Cadia Hill gold mine. The exploration method is to use diamond bit drilling which creates heavy air and noise pollution in the surrounding environment.

The mining method is open pit, and requires blasting of the pit using explosives, and this ~~it~~ is likely to cause air and noise pollution. Waste materials may enter waterways, destroying aquatic plants and animals.

Processing the ore requires large amounts of energy, as it involves grinding, centrifuging and froth flotation. It is likely that the wastes materials may enter waterways, destroying

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aquatic life, and eventually entering drinking water systems.