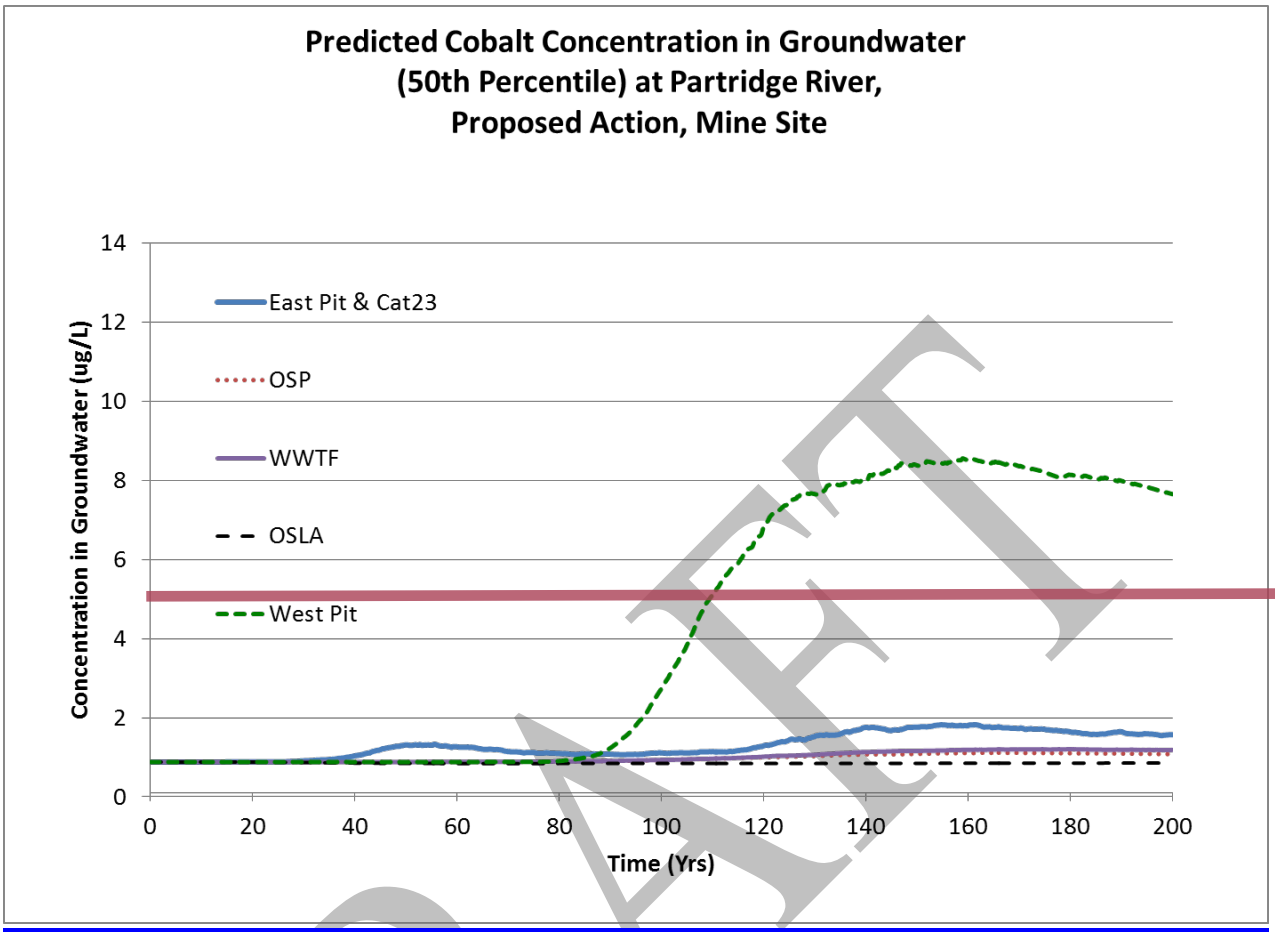

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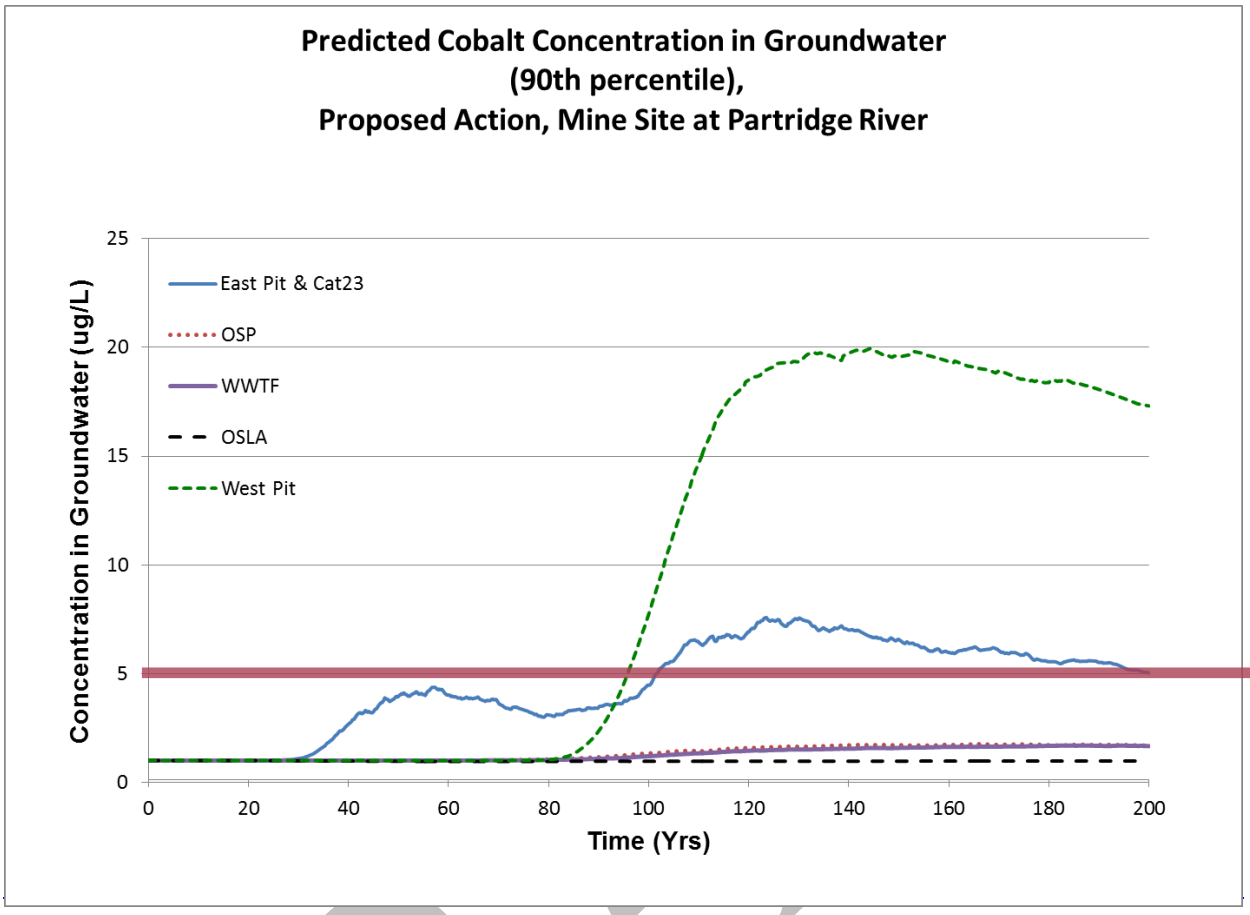

Figure 5.2.2-19 ***P50 Cobalt Concentrations in Surficial Groundwater Flowpaths at the Partridge River Based on GoldSim Probabilistic Simulation*** ~~***Predicted Maximum P90 Concentration of Cobalt in Groundwater at the Partridge River***~~

West Pit

~~Refill~~ ~~Flooding~~ Flooding of the West Pit would begin after the completion of mining in year 21~~0 when mining would be completed.~~ ~~Due to a number of factors, the~~The ~~initial~~ water in the West Pit is expected to~~would~~ contain dissolved oxygen with initial concentrations as high as 10 mg/L. This oxygen would ~~be~~ initially react~~ive~~ with the pit wall rock, but the reactivity would decrease over time as the oxygen content of the water is depleted. Groundwater flow in bedrock (although very small) would be towards the pit, so the only mechanism for oxygen to reach unoxidized rock beyond the pit wall would be diffusion, and this would limit the rate of wall rock chemical reactions. ~~This, in combination with the cycling of pit lake water through the WWTF, would result in a decrease in the pit lake solute concentrations by year 37 when the West Pit lake would reach its maximum elevation.~~

~~Flooding of the West Pit would begin in year 20 when mining would be completed.~~ Once the water in the flooded pit would reach ~~reaches~~ the top of bedrock along the pit rim (approximate elevation 1,550 ft ~~and~~at ~~mine year~~year 33) ~~and year 35)~~, some of the pit lake water would begin to flow ~~from the pit~~ into the surficial aquifer~~aquifer~~. The quality of this aquifer inflow ~~is~~