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Digging equipment simulation and selection

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In coal mining activity, the primary variable cost is overburden digging and hauling cost. Principally, production target must match or follow to mining area, or we must have suitable mining area to reach production target. When there is no suitable mining area, we pay longer overburden distance cost, bigger hole on the end of mining activity, and reduced reclamation area. On sheet "Coal mine models and simultion" fill value on yellow cell, those are: ω Wall slope (degree), α Road grade (%), Lp1 Pit width (meter), Δ Elv Wall height (meter) Rw Road width (meter), B Maximum bench height (meter), Δ T Δ Elevation between out crop & cress. Depending on the pit factors above, this calculation offer volume of each bench, and then do simulation depending on the continuity production of digging equipment. On the other hand, back filling will be started soon for minimum of the ex-mine holes and part of hauling distance. After we have mine pit dimension using Mincom software, the simulation suitable for matching and equipment for each production can be selected and easier scheduling with another pits can be made. If equipment production cost is higher, the investment will be wasted.

Biography

Kaiwan has completed his degree from Universitas Pembangunan Nasional "veteran". He has working experience on coal mine in the areas of mine plan design, drilling and blasting, and mining sequence operation control up to reclamation.

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