

ABSTRACT

West Banko Mine is one of the mine owned by PT.Bukit Asam (Persero) Tbk.is located in Tanjung Enim, South Sumatera. The location of the operational area has a very high rainfall, Moreover, mining tools using shovel-truck, then it requires a good system dewatering mine production activities in order to run properly. Based on analysis of rainfall data of 2001-2010, the amount of rainfall is 111,03 mm daily planner with a return period of rainfall during the 3 years. Therefore, the intensity of rainfall in West Banko Mine is included in the category of very heavy rain. Research sites conducted the assessment is Pit-3 and Pit-3 settling pond. Pit-3 have a rain catchment area of 87.2 ha. Pit-3 channel has one open channel and one ring canal. Direction of runoff water flows through open channels in order to flow to sinks Pit-3 while the ring canal is by direction of flow toward the settling pond in Pit-3. Pit-3 wells are located close to the front seam coal mining C. Volume wells required is very influential on the number of pumps used. In this calculation, use the pump as much as 2 brands Sulzer pumps are fitted with a 385 KW direct debit system 6,9 m³/minutes and 7,6 m³/minutes, so the remaining water is not pumped around 52.183,23 m³. Settling pond in Pit-3 is a reservoir before the water flowed into the Klawas Rivers. Sources of water that enters the pool of deposition is derived from the results of pumping in sinks Pit-3. The amount of discharge water from the pit-3 pumping wells is 870 m³/hr, while the runoff water discharge of 13.392 m³/hr. after doing the calculations by using the Stokes law, obtained by velocity sedimentation of solids = 0,0059 m/sec, the percentage of the precipitation of 58,44% and settling pond dredging schedule should be checked each 15 days.