

ABSTRAK

Sebagian besar usaha pertambangan di Kecamatan Boyan Tanjung aktivitasnya dilakukan di aliran sungai Batang Bunut dengan menerapkan metode penambangan aluvial (*Alluvial Mine*) dilokasi sepanjang 12.7 kilometer dan dikelola oleh masyarakat. Metode pertambangan yang diterapkan oleh masyarakat di lokasi penelitian adalah dengan cara menyedot material dari dasar sungai dengan bantuan mesin sedot *Mitsubishi Fuso 120 PS*. Pertambangan rakyat di Kecamatan Boyan Tanjung di ketahui perlu adanya analisa dalam aspek teknis apakah wilayah usulan pertambangan rakyat ini bisa menghasilkan konsentrat yang di inginkan, serta melakukan analisa dalam aspek ekonomis dengan menghitung NVP, IRR dan PBP sehingga pertambangan rakyat di Kecamatan Boyan Tanjung ini menguntungkan untuk di tambang. Konsentrat emas yang di dapat selama 8 (delapan) tahun umur tambang pada titik 002, 014 dan 034 adalah sebesar 111.723 gram, 110.961 gram, dan 104.282 gram. Nilai *Net Present Value* titik 002 sebesar Rp 11.835.700.842,-, *Internal Rate of Return* sebesar 64,42%, dan *Payback Period* 1,794 tahun. Nilai *Net Present Value* titik 014 sebesar Rp 11.730.023.055,-, *Internal Rate of Return* sebesar 64.40%, dan *Payback Period* 1.788 tahun. Nilai *Net Present Value* titik 034 sebesar Rp 11.265.270.692,-, *Internal Rate of Return* sebesar 64.72%, dan *Payback Period* 1.821 tahun.

Kata kunci: Tambang *Alluvial*, WPR, Analisa Kelayakan.

ABSTARCT

Mining businesses in Boyan Tanjung District are carried out in the Batang Bunut river by applying the alluvial mining method (Alluvial Mine) along a 12.7 kilometer location and managed by the community. The mining method applied by the community at the research site is by sucking material from the river bed with the help of a Mitsubishi Fuso 120 PS suction machine. People's mining in Boyan Tanjung District is known to need an analysis in the technical aspect whether the proposed community mining area can produce the desired concentrate, as well as conducting an analysis in the economic aspect by calculating NVP, IRR and PbP so that smallholder mining in Boyan Tanjung District is profitable for in the mine. The gold concentrate obtained during the 8 (eight) years of mine life at points 002, 014 and 034 was 111.723 gram, 110.961 gram, and 104.282 gram. The Net Present Value of point 002 is IDR 11.835.700.842, -, the Internal Rate of Return is 64.42%, and the Payback Period is 1.794 years. The Net Present Value of point 014 is IDR 11.730.023.055, -, the Internal Rate of Return is 64,40%, and the Payback Period is 1,788 years. The Net Present Value of point 034 is IDR 11.265.270, -, the Internal Rate of Return is 64,72%, and the Payback Period is 1.821 years.

Keywords: *Alluvial Mine, WPR, Feasibility Analysis*