

Sebaran potensi deposit emas epithermal di kabupaten kupang (studi kasus area eksplorasi pt. intan prima metalindo dan sekitarnya, kabupaten kupang) = Distribution of potential epithermal gold deposit (case study gold mining exploration areas pt. intan prima metalindo, kupang regency)

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Abstrak

Emas merupakan bahan galian tambang kelas B yang banyak diminati masyarakat karena memiliki nilai tinggi. Dalam kegiatan eksplorasi emas, penginderaan jauh dapat dimanfaatkan untuk menunjang analisis bidang geologi dan mineral dalam mengefektifkan kegiatan ini. Pada penelitian ini, penginderaan jauh dimanfaatkan untuk meneliti sebaran potensi deposit emas epitermal dengan asosiasi mineral yang berhubungan serta variabel geologi dan mengintegrasikannya dalam sistem informasi geografis. Tujuan penelitian ini mencoba untuk mendapatkan sebaran potensi deposit emas epitermal di daerah penelitian. Metode yang dipergunakan dalam penelitian ini adalah defoliant technique dan Fuzzy Logic dengan analisis spasial deskriptif.

Hasil penelitian dianalisis berdasarkan luas sebaran pada tiga Izin Usaha Pertambangan (IUP) di area eksplorasi PT. Intan Prima Metalindo di mana hasilnya menyimpulkan sebaran potensi deposit emas epitermal menyebar pada dua IUP, yaitu IUP 3 (bagian utara) dan IUP 1 (bagian selatan). Sebaran potensi pada IUP 3 seluas 819 Ha, sedangkan sebaran pada IUP 1 hanya seluas 229 Ha. Kemudian IUP 2 (bagian barat) berdasarkan hasil pengolahan data, tidak menghasilkan potensi yang signifikan atau tidak memiliki luasan wilayah sebaran potensi sesuai yang telah dikategorikan. Penyebaran ini juga mengikuti arah sebaran struktur geologi (yang menyebar merata seluruh lokasi IUP), sebaran litologi potensial (berasal dari formasi Ultrabasa, Kompleks Mutis, Maubisse), dan zona alterasi (terutama alterasi propilitik dan alterasi argilik lanjut). Validasi hasil potensi sebaran diukur berdasarkan 43 titik sampel dan dihasilkan nilai ketelitian 84%.

.....Gold is a mining class B which attracted many people because it has a high value. In gold exploration, remote sensing can be used to analyze geological and mineral sector. In this research, remote sensing has used to identify the distribution of epithermal gold deposits associated with mineral associations and geological variables and integrate them in geographic information systems. The aim of this research is trying to get the distribution of epithermal gold deposits in the experimental zone. The method is using defoliant technique and fuzzy logic with spatial analytical description.

The research has analyzed by distribution area in three Mining Exertion License (IUP) in the exploration area of Intan Prima Metalindo Company where the result concludes that the potential distribution of epithermal gold deposits in the area of exploration is spread at two IUP, those are 3th IUP (at north) and 1st IUP (at south). The distribution in 3th IUP locations covering 819 hectares, whereas distribution in 1st IUP covering of 229 hectares. Then 2nd IUP (at west) based on the results of data processing, does not produce a significant potential or does not have a corresponding potential distribution area of the region that have been categorized. This distributions also following the geological structure in the direction distribution (which is spread evenly throughout the location of all IUP), the distribution of potential lithology (derived from

Ultramafic Formations, Mutis Complex, Maubisse Formations), and alteration zones (mainly propylitic alteration and advanced argillic alteration). The validation of potential has measured by 43 sample points and resulted carefulness value 84%.