

**ANALISIS POTENSI PENCEMARAN AIRTANAH TERHADAP
KEBOCORAN TANGKI PENDAM SPBU DI KALURAHAN SRIMULYO,
KAPANEWON PIYUNGAN, KABUPATEN BANTUL, DIY**

Oleh

Salsabila Paundria Cayadewi

114170059

INTISARI

Perkembangan zaman berpengaruh terhadap sarana transportasi yang terus mengalami kemajuan. Jumlah kendaraan bermotor yang meningkat diiringi dengan peningkatan konsumsi BBM sehingga banyak dibangun Stasiun Pengisian Bahan Bakar umum (SPBU). Keberadaan SPBU memiliki risiko terhadap pencemaran airtanah akibat dari kebocoran tangki pendam dan aktivitas SPBU. SPBU Payak yang berada di Kalurahan Srimulyo, Kapanewon Piyungan, Kabupaten Bantul berada di wilayah padat pemukiman dengan kondisi airtanah yang cenderung dangkal. Tujuan dari penelitian ini ialah untuk mengetahui tingkat potensi pencemaran airtanah terhadap kebocoran tangki pendam SPBU, kualitas airtanah, dan arahan pengelolaan yang tepat.

Metode yang digunakan adalah metode campuran, yaitu kualitatif dan kuantitatif. Pengumpulan data dilakukan dengan survey, pemetaan, dan uji laboratorium. Pengambilan sampel terhadap kualitas airtanah dilakukan dengan metode *purposive sampling* berdasarkan arah aliran airtanah. Analisis hasil penelitian menggunakan metode matematis dan deskriptif untuk penentuan potensi pencemaran dan kualitas airtanah. Penentuan potensi pencemaran airtanah menggunakan metode Le Grand dengan 5 parameter fisik, yaitu kedalaman muka airtanah, kemiringan muka airtanah, daya serap di atas permukaan tanah, permeabilitas akuifer, dan jarak horizontal terhadap sumber pencemar. Penentuan kualitas airtanah menggunakan metode Indeks Pencemaran.

Tingkat potensi pencemaran airtanah kecil (sangat sulit tercemar) dari seluruh titik pengamatan. BOD dan COD di salah satu titik sampel melampaui batas baku mutu dan memiliki status mutu tercemar ringan. Arahan pengelolaan berupa upaya mitigasi untuk mencegah dan meminimalisir potensi pencemaran dilakukan dengan pembuatan sistem drainase pada daerah-daerah pembongkaran dan shelter pengisian bahan bakar serta pembuatan *Oil Trap* untuk memisahkan kandungan minyak dan air sebelum menyebar ke lingkungan sekitar.

Kata kunci: Le Grand, Oil Trap, Potensi Pencemaran, SPBU, Tangki Pendam

**ANALYSIS OF GROUNDWATER POLLUTION POTENTIAL DUE TO
LEAKAGE OF SPBU UNDERGROUND TANK IN SRIMULYO VILLAGE,
PIYUNGAN DISTRICT, BANTUL REGENCY, DIY**

**Oleh
RR Salsabila Paundria Cayadewi
114170059**

ABSTRACT

The development of the times affects transportation facilities that continue to progress. The increasing number of motorized vehicles is followed by an increase in fuel consumption, resulting in the construction of many gasoline stations (SPBU). The existence of a gasoline station has a risk of groundwater pollution due to the leakage of storage tanks and SPBU activities. SPBU Payak located in Srimulyo Village, Piyungan District, Bantul Regency is in a densely populated area with shallow groundwater conditions. This study aims to determine the potential level of groundwater pollution due to the leakage of gas station storage tanks, groundwater quality, and determine to appropriate management.

The method was used is a mixed method namely qualitative and quantitative. Data was collected by surveys, mapping, and laboratory tests. A sampling of groundwater quality was carried out by purposive sampling method based on the direction of groundwater flow. Analysis of research results using mathematical and descriptive methods to determine the potential for pollution and groundwater quality. Determination of the potential for groundwater pollution using the Le Grand method with 5 physical parameters namely the depth of the groundwater table, the slope of the groundwater table, the absorption capacity above the ground surface, the permeability of the aquifer, and the horizontal distance to the pollutant source. Determination of groundwater quality using the Pollution Index method.

The result of the study shows that the observation location has a small (very difficult to pollute) from all observation points. BOD and COD at one of the sample points exceeded the quality standard and had a slightly polluted quality status. The direction of management is mitigation to prevent and minimize the impact of pollution by making catchment area and installing Oil Traps to separate oil content in water so that fuel products do not pollute the environment.

Keywords: Le Grand, Oil Trap, Potential Pollution, SPBU, Underground Tank