

## INTISARI

Sistem air tanah di Bendungan Pandanduri dan sekitarnya ditentukan oleh kondisi geologi, geomorfologi, dan pola aliran airtanah. Batuan breksi andesit mendominasi pada daerah penelitian, dijumpai tiga (3) satuan batuan yang dapat dibedakan yaitu (1) satuan breksi andesit - pumis berada di bagian selatan daerah penelitian, tepatnya pada area waduk, (2) satuan breksi andesit mendominasi berada di bagian timur, barat dan utara daerah penelitian, dan (3) satuan endapan pasir lempungan yang berada di bagian utara daerah penelitian menutupi breksi andesit. Akuifer daerah penelitian merupakan akuifer sistem pori, berada pada litologi batuan breksi andesit masa dasar tuff pasiran. Interpretasi 2D pada area bendungan menunjukkan bahwa litologi breksi andesit - pumis memiliki nilai tahanan jenis antara  $5 \Omega\text{m} - 25 \Omega\text{m}$ . Berdasarkan hasil pengamatan lapangan, didapatkan litologi berupa 1) Breksi andesit yang dapat bertindak sebagai akuifer 1 dan akuifer 2 berdasarkan data bor bendungan, 2) Breksi andesit – pumis yang dapat bertindak sebagai aquitar, dan 3) Endapan aluvial yang dapat bertindak sebagai akuifer 3. Pola aliran airtanah akuifer bebas mengikuti bentuk topografi yang mengalir dari area perbukitan barat - barat laut Desa Santong menuju lembah sungai bagian tenggara di Desa Pandanduri, hal ini dipengaruhi oleh kondisi geologi dan kondisi geomorfologi. Analisa lokasi rembesan dilakukan di tiga (3) lokasi dengan adanya indikasi rembesan bendungan, yaitu STA 0+650, STA 0+950 dan *Saddle Dam 2*. Besarnya rembesan yang melalui tubuh bendungan STA 0+650  $0.88 \text{ l/dt} < 1.204 \text{ l/dt}$  memenuhi syarat, rembesan yang melewati pondasi Bendungan Pandanduri  $61.8 \text{ l/dt} > 42.1924 \text{ l/dt}$  adalah tidak memenuhi syarat. Besarnya rembesan yang melalui tubuh bendungan STA 0+950  $0.88 \text{ l/dt} > 0.8341 \text{ l/dt}$  memenuhi syarat, rembesan yang melewati pondasi Bendungan Pandanduri  $1.346 \text{ l/dt} < 10.143 \text{ l/dt}$  adalah memenuhi syarat. Besarnya rembesan yang melalui tubuh bendungan *Saddle Dam 2* tidak diketahui karena v-noth tidak mengeluarkan air, rembesan yang melewati pondasi Bendungan Pandanduri  $0.06 \text{ l/dt} < 6.7 \text{ l/dt}$  adalah memenuhi syarat.

Kata Kunci : Bendungan Pandanduri, Sistem Air Tanah, Potensi Rembesan,  
*SEEP/W*

## ***ABSTRACT***

The groundwater system in the Pandanduri Dam and its surroundings is determined by geological conditions, geomorphology, and groundwater flow patterns. Andesitic breccia dominates in the study area, and three (3) rock units can be distinguished, namely (1) andesite-pumice breccia units are located in the southern part of the study area, precisely in the reservoir area, (2) andesitic breccia units dominate in the eastern part, west and north of the study area, and (3) clay sand sediment units in the northern part of the study area covering andesite breccias. The aquifer in the study area is a pore system aquifer located in andesitic breccia lithology at the bottom of sandy tuff. 2D interpretation of the dam area shows that the andesite-pumice breccia lithology has a resistivity value between  $5 \Omega\text{m} - 25 \Omega\text{m}$ . Based on the results of field observations, lithology was obtained in the form of 1) andesitic breccias, which can act as aquifer1 and aquifer2 based on dam drilling data. 2) andesite-pumis breccias which can act as aquitars, and 3) alluvial deposits, which can act as aquifers 3. Pattern The unconfined aquifer groundwater flow follows the topographical shape that flows from the hilly area west-northwest of Santong Village to the southeastern river valley in Pandanduri Village. Geological conditions and geomorphological conditions influence this. Seepage location analysis was carried out in three (3) locations with indications of dam seepage: STA 0+650, STA 0+950, and Saddle Dam 2. The amount of seepage through the body of the Dam STA 0+650  $0.88 \text{ l/s} < 1,204 \text{ l/s}$  meets the requirements. Seepage through the Pandanduri Dam foundation  $61.8 \text{ l/s} > 42.1924 \text{ l/s}$  is not eligible. The amount of seepage through the body of the STA 0+950 dam  $0.88 \text{ l/s} > 0.8341 \text{ l/s}$  meets the requirements, and seepage through the foundation of the Pandanduri Dam  $1.346 \text{ l/s} < 10.143 \text{ l/s}$  is eligible. The amount of seepage through the body of the Saddle Dam 2 dam is unknown because v-notch does not release water. Seepage through the foundation of the Pandanduri Dam  $0.06 \text{ l/s} < 6.7 \text{ l/s}$  is eligible.

*Keywords: Pandanduri Dam, Groundwater System, Seepage Potential, SEEP/W*