

**“ANALYSIS OF THE EFFECT OF POLLUTION OF PRODUCED WATER  
TO KALIASIN RIVER AND GROUND WATER AT LEDOK VILLAGE,  
SUBDISTRICT OF SAMBONG, REGENCY OF BLORA, PROVINCE OF  
CENTRAL JAVA”**

By

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**Abstract**

This Research located in the administrative area of Ledok Village, Sub District of Sambong, Regency of Blora, Province of Central Java. Oil exploitation in Ledok traditionally performed under the supervision of Institute for Research and Community Services of UPN "Veteran" Yogyakarta. This Research aimed to (1) Determine the effect of the oil exploitation activities that traditionally performed by residents of Ledok, (2) Determine the quality of produced water, water of Kaliasin River, and ground water of Ledok residents, (3) Determine the level of pollution in water of Kaliasin River and ground water, (4) Determine the direction of contamination spreading of ground water.

Methods used in this research are survey and laboratory analysis methods. Sampling technique used in this research is random sampling. Methods of data analysis used descriptive analysis and index of contamination. The threshold which used is Permen LH no. 19 years 2010 and Permen LH no. 82 years 2001.

Based on the evaluation of research on site, showing that oil exploitation that traditionally performed by the residents of Ledok caused damage to physical environment and the presence of oil layer and discoloration of Kaliasin River, and oil spills on land around oil wells. TDS levels in produced water are not accordance with the standard quality with 20934 ppm highest value of TDS in 163 SP and 9576 ppm of the lowest value of TDS in 03 SP. Water quality of Kaliasin river and ground water have met standard quality appropriate designation. The level of pollution in the upstream of Kaliasin River is lightly polluted, while level of pollution of ground water is in good condition (accordance with the threshold). The direction of contamination spreading of ground water relative to the southeast area, or directly to the residential areas. Direction of the management in control of producewater pollution has been done in 2 methods, with the technological and institutional approaches.

keywords: produced water, water quality, level of pollution, destilation, wastewater treatment.