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## Assessment of ground water quality due to coal mining at Talabira-I coal mine, Sambalpur, Odisha

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### ABSTRACT

*Determination of physico-chemical characteristics of ground water is essential for assessing the suitability of water for drinking purposes. Keeping this view, a systematic study was carried out to assess the ground water quality at Talabira-I coal mine area, Sambalpur, Odisha, India. In the present study, 10 nos. of tube wells located in different areas adjacent to Talabira-I coal mine were chosen for analysis. A large number of physico-chemical parameters such as pH, conductivity, turbidity, TDS, TH, Ca, Mg, Cl, F, SO<sub>4</sub>, PO<sub>4</sub>, Fe and Cr were found to be well within the permissible limits. Concentrations of iron and TH in some samples were slightly high in the study stretch. So the water samples indicate that after removal of iron, the water can be used for drinking purpose.*

**Keywords:** Drinking water, Physico-chemical parameters, Permissible limits, Talabira-I coal mine.

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