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A risk-based approach for identifying constituents of concern in oil sands process-affected water from the Athabasca Oil Sands region

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**Title:** A Risk-based Approach for Identifying Constituents of Concern in Oil Sands  
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## **Abstract**

Mining leases in the Athabasca Oil Sands (AOS) region produce large volumes of  
oil sands process-affected water (OSPW) containing constituents that limit beneficial  
uses and discharge into receiving systems. The aim of this research is to identify  
constituents of concern (COCs) in OSPW sourced from an active settling basin with the  
goal of providing a sound rationale for developing mitigation strategies for using  
constructed treatment wetlands for COCs contained in OSPW. COCs were identified  
through several lines of evidence: 1) chemical and physical characterization of OSPW

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