

POSTER PRESENTATION

HAVE ATMOSPHERIC EMISSIONS PRODUCED FROM THE EXTRACTION OF THE ATHABASCA OIL SANDS AFFECTED CANADIAN SHIELD LAKES?

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Due to energy demands in the 1970s, technology was developed to facilitate the extraction of bitumen sand in northern Alberta, Canada. Increasing oil prices and the development of more economically feasible technology for extraction, mining, and refining of tar sands in the last decade, has caused an increase in NO_x emissions. There is growing ecological concern as these emissions have the potential of causing lake acidification in the poorly buffered Canadian Shield lakes. Diatoms from dated sediment cores of four Canadian Shield lakes were analyzed to determine whether increased nitrogen emissions have caused changes in diatom abundance and species assemblages that may be indicative of recent lake acidification.