



Results of the Commission's 2019 Aerial Leak Detection Survey

The BC Oil and Gas Commission (Commission) recently completed an aerial survey of 104 decommissioned gas wells east of Fort Nelson and identified four wellsites where methane was detected.

As part of the Commission's mandate to ensure the integrity of decommissioned wells, the Commission has conducted aerial surveys for the past three years using a laser-based methane detector mounted on the underside of a helicopter. This survey method allows easy access to sites in difficult and inaccessible terrain, is fast, cost effective, and can detect very low concentrations of methane. The long-term goal of this program is to obtain a representative sampling of decommissioned wells throughout all areas of northeast B.C.

Multiple passes over the decommissioned wellsites near Fort Nelson were made during three days in mid-July 2019. The wells were randomly selected and included open-hole abandonments, cased-hole abandonments, and wells with a previous history of surface casing vent flows.

Four wells were identified through the aerial survey as potentially having emissions and Commission inspection staff subsequently confirmed elevated methane levels in each. The Commission has notified permit holders for three of the wells, directing them to investigate the source of the methane and complete repairs as required under the Drilling and Production Regulation. The fourth well will continue to be monitored, as it was previously assessed and is located in an area with naturally occurring methane seeps.

The aerial surveys in 2017 and 2018 were focused in the vicinity of Fort St. John and found about one per cent of decommissioned wells were emitting methane. The 2019 rate was higher at about three per cent. Results from the investigation and repair of the wells will inform inspection programs and drive improvements to well decommissioning practices. The Commission intends to continue the aerial inspection program annually, focusing on different areas throughout northeastern British Columbia.

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