

# Alt-FEMP Executive Summary

Company	Program start	Program end	# of sites
International Petroleum Corporation	April 28, 2023	December 31, 2024	116

Once an alternative fugitive emissions management program is approved, AER staff draft this executive summary. This is a summary only, published to help interested stakeholders understand what has been approved. These summaries are found on our website, [www.aer.ca](http://www.aer.ca) > Protecting What Matters > Holding Industry Accountable > Industry Performance > Methane Performance > [Alternative Fugitive Emission Management Program Approvals](#). For additional information on these approvals, contact [methane.reduction@aer.ca](mailto:methane.reduction@aer.ca).

## Summary

International Petroleum Corporation (IPC) is an international oil and gas exploration and production company with a high-quality portfolio of assets in Western Canada. IPC owns and operates 130 facilities in Alberta, located on 87 legal subdivisions (LSDs). As of 2021, IPC has implemented regular leak detection and repair (LDAR) programs in accordance with provincial regulations. The objective of this proposal is to receive approval from the Alberta Energy Regulator for IPC to implement a pilot alternative fugitive emissions management program (alt-FEMP) across all 130 facilities.

Due to the restrictions associated with some of IPC’s facilities (i.e., no aerial monitoring is allowed in the Suffield region because of the Canadian Forces airbase), the facilities were divided into two regions: Region Suffield in the south-central zone (54 facilities), and Region 2, which includes the remaining 62 facilities across the north, east, and south zones. The alternative fugitive emissions management program (alt-FEMP) will use two different technologies.

A representative control region encompassing 14 facilities was omitted from the modelling scope. In the control region, OGI surveys under *Directive 060* will occur, providing data that will be compared with the performance data from the selected alternative program.

For Region Suffield, the alt-FEMP will use truck-based screenings in Q2 2023, Q4 2023, Q2 2024, and Q4 2024. For Region 2, UAV (unmanned aerial vehicle) screenings will be used in Q2 2023, Q4 2023, and Q2 2024.

The two-year alt-FEMP methodology for the Suffield Region is as follows:

Step 1	Screen	Conduct site-level screening. The selected alternative program will deploy four screening campaigns throughout the program: <ol style="list-style-type: none"> <li>1) Truck-based screening, Q2 2023</li> <li>2) Truck-based screening, Q4 2023</li> <li>3) Truck-based screening, Q2 2024</li> </ol>
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		<p>4) Truck-based screening, Q4 2024</p> <p>The screening technologies will capture both vented and fugitive emissions. Screening campaigns will occur more than three months apart.</p>
Step 2	Rank	<p>Following each screening campaign, emissions will be attributed to an LSD and the LSDs will be ranked highest to lowest by their total emissions. The follow-up threshold percentage determines the top number of LSDs to be visited for emissions localization and repair. The selected program has the following follow-up requirements after each designated screening event:</p> <ul style="list-style-type: none"> <li>• Screening campaign 1 (Q2 2023): 30% follow-up,</li> <li>• Screening campaign 2 (Q4 2023): 40% follow-up,</li> <li>• Screening campaign 3 (Q2 2024): 30% follow-up, and</li> <li>• Screening campaign 4 (Q4 2024): 40% follow-up.</li> </ul> <p>30% follow-up means the emissions localization will occur on the ground at the top 30% of screened LSDs ranked by total emission rate. So, after receiving truck screening data the top 16 LSDs (54* 0.3) will be followed up on using an OGI camera. All facilities sharing the same LSD will be surveyed. If an emission rate of 500 m<sup>3</sup>/day or greater is detected and the corresponding LSD – which must be surveyed and repaired according to <i>Directive 060</i> – is identified as being in the 30% of LSDs with the highest emissions, its survey will count toward the follow-up total.</p>
Step 3	Follow-Up	<p>Follow-up emissions localization will occur on the ground at the LSDs outlined in Step 2. Here, fugitive emissions will be differentiated from vented emissions. Fugitive emissions will then be tagged and recorded for repair, while vented emissions will be recorded for potential future reduction programs.</p>
Step 4	Repair	<p>At the follow-up sites, all fugitive repairs will be made according to <i>Directive 060</i> timelines once a fugitive leak has been localized.</p>