Canadian Natural will utilise a combination of technologies to execute the approved Alt-FEMP program in the NW Alberta region (including Grande Prairie, Fairview, and Edson fields). Aerial methane detection technology will be coupled with ground-based, vehicle-mounted methane detection technology to achieve the planned outcomes under the pilot proposal. Canadian Natural intends to run its proposed pilot program in the NW Alberta region for two years. Furthermore, these technologies will be using Alberta-based service providers.

Based on Table 4 of D060, section 8.10.2, in the NW Alberta region, there are 494 facilities that are subject to annual surveys and 140 facilities that are subject to triannual surveys for the baseline D060 FEMP. Canadian Natural's Alt-FEMP pilot program proposes screening all 634 facilities twice per year using ground-based, vehicle-mounted methane detection technology and a third survey at the 140 triannual facilities using an aerial methane detection technology. Pad sites that do not fall under Table 4 of D060 are not included in the Alt-FEMP pilot program, and will receive annual screenings.

Canadian Natural will contract an aerial methane detection service provider early in each program year to complete the aerial surveys. The data will be provided back to Canadian Natural and analysed for prioritisation of ground-based surveys. Any location that is emitting over 500m^3/day will be scheduled for further investigation.

The ground-based, vehicle-mounted methane detection technology will be installed on equipment owned by Canadian Natural and will be operated by Canadian Natural employees. These employees will be Field Operations staff who are familiar with the sites, layouts and venting equipment because of their experience in the industry and the area. The operator will navigate the site in accordance with the equipment provider's recommendations, and obtain live indications and quantifications of emissions during the survey. Emission detections can then be investigated onsite, immediately following vehicle-mounted detection, utilising the optical gas imaging (OGI) camera in the event additional information is required. Any fugitive emissions measured over 60m^3/d, or higher than expected continuous vent volumes, will be investigated. The operator can then immediately conduct repairs or prepare an action plan to address the methane emission sources in the event that the repair cannot be completed during the initial site visit. Any total site emissions found to be larger than 500m^3/d will be investigated (continuous vents combined with fugitives), as will any continuous vent under this threshold that seems uncharacteristic based on the operator's experience in the area.

Canadian Natural contracted an independent gas emissions research and analysis service provider to model the baseline fugitive emissions, the default OGI fugitive emissions and the Alt-FEMP fugitive emissions based on the survey frequency of the pilot program. The results in the following table show that the Alt-FEMP pilot program that Canadian Natural is proposing has the potential to result in lower annual fugitive emissions than the baseline D060 FEMP requirements:

Program	Estimated Annual Fugitive Emission Reductions
Baseline D060 FEMP (Default OGI)	1,254,430 m3/year
Alt-FEMP pilot program	1,297,353 m3/year

The results of the Alt-FEMP will be reviewed annually by the Alt-FEMP Management Team to analyse for emerging patterns and incorporate any regulatory changes. The Alt-FEMP is a dynamic tool that will continue to evolve as knowledge is gained, shared and incorporated into application of the program. The more understanding Canadian Natural gains on its fugitive emission profile, the more efficient the application of the FEMP and Alt-FEMP programs will become. The FEMP Management Team has set the following key performance indicators to evaluate the performance of the FEMP over time:

- Quantified emissions reduction over time, corporate-wide and by operating area
- Cost of detection ($/t methane detected)
- Volume of gas conserved by managing fugitive emissions
- Number of leaking components over time , corporate-wide and by operating area
- Specific component within facilities that are more prone to leaks
- Time between leak detection and repair

The continuous improvement indicators will be reviewed annually, and the FEMP Management team will utilise the data to inform the annual update of the FEMP.