

Project Summary, Milestones, Payment Schedule and Quarterly Update Reports

Report Date: Oct 17, 2024 (Q2 2024/2025)

Project Summary

Project Title:	Methane Emissions – Risk Tool – Site Prioritization and Emission Closure Guidelines
Lead Investigator:	Anthony Knafla
AUPRF Managed Funds Award Amount:	\$133,000
PTAC Technical Champion:	Shawn Forster (Cenovus) / Ken Masich (AER)
GL #:	20-WARI-04
Project Total Cost (all years)	\$133,000
Leveraged Cash Funding (all years)	\$0,000
Leveraged In-Kind Funding (all years)	\$11,000
Start Date:	May 2020
Completion Date:	April 2025
Final Report Due Date:	April 2025

Provide a brief description of the challenges this project aims to address and how industry and others will benefit, including what the anticipated impact is. (i.e., cost reductions, improved environmental performance, impact on regulation, enhanced access to resources). (Maximum 150 words or less)

Costs to repair leaking surface casing vent flows (SCVFs) at abandoned wells can be of significant financial impact to oil and gas companies. Yet these expenditures may not always be the most effective or efficient for protecting the health of humans and components of the local environment, as well as reducing Greenhouse Gas Emissions (GHGs). Any savings on SCVF leak mitigation costs could be distributed to other lower cost abatement technologies, for a net environmental benefit at equivalent expenditure.

The work scope includes the following:

1. Develop a scientifically defensible non-zero acceptable minimum methane emission level (guideline) for SCVF leaks associated with abandoned wells; and,
2. Identify barriers to guideline development and stakeholder requirements.

Key knowledge gaps include identifying emission levels that do not pose an unacceptable health risk to humans and ecology. Furthermore, understanding the regulatory framework under which a guideline can be implemented in Alberta and addressing stakeholder concerns.

List scope key milestones with invoicing schedule. Include quarterly estimates.

Milestone	Planned Expenditures ¹	Actual Expenditures	Status
Q1 (Apr 1 – Jun 30) 2020			
1	\$10,003.25	\$10,003.25	Project scope, potential model variables
Q2 (Jul 1 – Sep 30) 2020			
1.	\$6,196.75	\$6,196.75	Guideline scope and development
Q3 (Oct 1 – Dec 31) 2020			
1.	\$16,312.25	\$16,312.25	Model scoping, human health inhalation guideline
Q4 (Jan 1 – Mar 31) 2021			
1.	\$20,187.50	\$20,187.50	Aquatic life guideline scope and assessment, human health inhalation guideline
Q1 (Apr 1 – Jun 30) 2021			
1.	\$10,297.75	\$10,297.75	Human health inhalation guideline development, and plant guideline development
Q2 (Jul 1 – Sep 30) 2021			
1.	\$0.00	\$0.00	On hold for regulatory liaison
Q3 (Oct 1 – Dec 31) 2021			
1.	\$2,990.00	\$2,990.00	Plant risk – above ground surface exposure guideline development
Q4 (Jan 1 – Mar 31) 2022			
1.	Not invoiced	Not invoiced	Plant risks and groundwater transport risks and metals release
Q1 (Apr 1 – Jun 30) 2022			
1.	\$6,317.50	\$6,317.50	Plant risks and groundwater transport risks and metals release
Q2 (Jul 1 – Sep 30) 2022			
1.	\$5,962.75	\$5,962.75	Modeling work and influences of soil gas viscosity
Q3 (Oct 1 – Dec 31) 2022			
1.	\$4,010.00	\$4,010.00	Modelling work and writing
Q4 (Jan 1 – Mar 31) 2023			
1.	\$6,000.00	\$6,000.00	Modelling work and writing
Q1 (Apr 1 – Jun 30) 2023			
1.	\$10,500.00	\$10,500.00	Case studies exploration, analytical and completion requirements for supporting assessment work
Q2 (Jul 1 – Sep 30) 2023			
1.	\$4,000.00	\$4,000.00	Writing, data analysis
Q3 (Oct 1 – Dec 31) 2023			
1.	\$6,401.25	\$6,401.25	Outreach, feedback incorporation
Q4 (Jan 1 – Mar 31) 2023			
1.	\$3,429.01	\$3,429.01	Report writing, SCVF and pressure

¹ All expenditures in Canadian dollars and must exclude GST and other applicable taxes.

			changes over time scoping
Q1 (Apr 1 – Jun 30) 2024			
1.	\$9,615.00	\$9,615.00	Investigation and analytical requirements, documentation
Q2 (Jul 1 – Sep 30) 2024			
1.	\$4,371.25	\$4,371.25	Literature review, writing
Q3 (Oct 1 – Dec 31) 2024			
1.	\$4,000.00		Finalize algorithms, writing
Q4 (Jan 1 – Mar 31) 2025			
1.	\$6,000.00		Best practices document
Q1 (Apr 1 – Jun 30) 2025			
1.	\$2,434.00		Best practices document
Total	\$133,000		

Quarterly Update

Exception Highlight for the Quarter:

(any exceptions to the original project scope, timelines, payment schedule / amount(s) OR early significant findings) – this can be left blank if no changes are needed, and do not include exceptions already reported.

1. Continue work on report writing and document deliverable. Based on feedback from CAPP and PTAC, focus the document on a Best Practices approach to avoid any inference that the document is providing a guideline that is acceptable in Alberta, which is within the auspices of provincial regulatory agencies.

Update on scope, key questions, gap analysis and work performed this quarter (include any requests for assistance to PTAC or the committees)

Write document as a Best Practices.