Public Quarterly Report

Date of Report: 2nd Quarterly Report – March 30, 2025

Contract Number: 693JK32410005POTA

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Project Title: P4: Practical Protocols and Partnerships for Pipelines

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For quarterly period ending: March 31, 2025

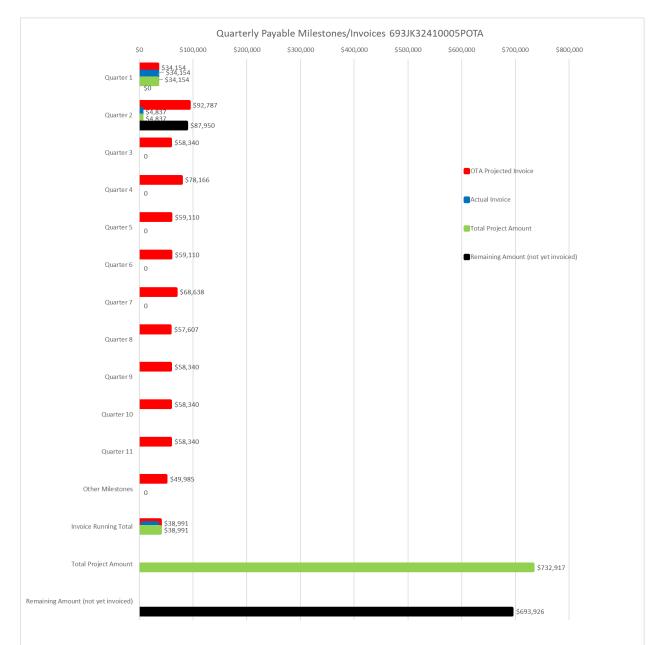
1: Items Completed During this Quarterly Period:

Item #	Task #	Activity/Deliverable	Title	Federal Cost	Cost Share
5	7	2nd Quarterly Status Report		\$ 4,837	\$ 0
		Second Payable Milestone		\$ 4,837	\$ 0

2: Items Not Completed During this Quarterly Period:

Item #	Task #	Activity/Deliverable	Title	Federal Cost	Cost Share
3	2	Literature Review		\$ 34,447	
4	3.1	Test Program – Year 1		\$ 53,503	\$ 0

Due to approval and contractor scheduling delays in the underground testbed build at the CSU METEC facility, the start of Year 1 testing is delayed, with estimated start date of June 1, 2025. The literature review is ongoing and will be invoiced when the first draft is completed.



3: Project Financial Tracking During this Quarterly Period:

4: Project Technical Status -

Item 1. Task 1 – Assemble Technical Advisory Panel

Relevant to Task 1, the Technical Advisory Panel has been assembled and finalized. Our next TAP meeting is scheduled for April 29, 2025, at 9 am MT/11 am ET. NDAs have been completed by our two academic panel members. The team continues to recruit and add TAP members.

METEC Underground Testbed – Preliminary Pipeline Progress

While reporting on developments on the buildout of the METEC underground pipeline testbed for which testing will be performed are not task driven and are not billable to this project, they are relevant and will motivate all future project progress. Furthermore, preliminary research of survey methods, fixed sensor designs, and pipeline standards necessary for the buildout are most immediately relevant to the literature review (Task 2) and to the creation of a flexible and effective test program (Task 3).

After delays in receiving construction approvals, the build out of the underground testbed is expected to start on or after April 1. Provided no unforeseen delays, we expect the testbed to be operational by June 2.

Task 2. Literature Review

The SMU team continues work on the literature review and expects to have the first draft included in the next quarterly report due on June 30.

Task 3. Test Program

Planning for the first testing round has begun with June 2 as the targeted start date. The team is scheduling meetings in April with project partners to assess testing needs, timelines and gather information to inform the protocol revisions.

Task 4. Showcase Event

CSU will host the first Solution Developers Showcase in conjunction with GTI's annual CH4 Connections Conference in October (confirmed for the 8th-9th). The showcase will be offered as a free pre-conference event on Monday, October 7 at the METEC facility in Fort Collins, CO, and corresponding research presentations will be offered at the CSU Energy Institute's Powerhouse Campus. Planning has begun and the team will share more detailed information with the TAP as they are confirmed.

5: Project Schedule -

Adjusted milestone dates for finalizing the literature review and start of the testing rounds are included in a revised Attachment 2. Project Deliverables, included here as Attachment 1.

Our intentions for Q3 will be to complete Task 2, a draft of the literature review and finalize the testing needs of partner companies and planning for Task 3. Testing Program, Round 1. Pipeline plans for the next reporting period that are separate, but relevant, include completion of the physical initial buildout of

the pipeline according to the work progress discussed above. Sensor and gas control integration will be discussed in the next report and completion of integration will be completed through Q3.

6. Attachments

1. Attachment 2. Project Deliverables

Partnership to Advance Pipeline Leak Detection Methods

PI, Daniel Zimmerle, Colorado State University

PROJECT DELIVERABLES

Gantt chart at end of attachment, for reference.

- 1. TAP constituted. **TAP formed and schedule set at 3 months. Report on TAP in** quarterly report month 3 (12/01/24).
- 2. Literature review developed and documented as a short report or included in the quarterly report.
 - a. Initial draft at month 6 (6/30/25)
 - b. Updated draft at month 21 (at end of R1 test cycle) (6/30/26)
 - c. Updated draft at month 33 (with final report) (9/30/27)
- 3. Update on testing results discussed with TAP and included in quarterly report.
 - a. R1 test cycle complete at month 21 (6/30/26)
 - b. Observations reported at quarterly report month 24 (9/30/26)
 - c. R2 test cycle complete at month 30 (3/30/27)
 - d. Observations reported at final report month 33 (6/30/27)
 - e. Companies present on their results at showcase; see showcase for schedule.
- 4. Showcase completed. Dates are shown as on Gantt chart but are approximate. The timing of the showcase will be tied to another event held in Fort Collins (TBD) that is likely to bring larger number of participants to Fort Collins. A typical example is the CH₄ Connections Conference held in October every year. Showcase will feature outside demonstrations and will be constrained to April-October to maximize the chances of good weather.
 - a. Report on showcase 1: next quarterly report following showcase (approx. month 13) (10/7/25 confirmed)
 - b. Report on showcase 2: next quarterly report following showcase (approx. month 21) (est. 6/1/26)
 - c. Report on showcase 3: at final report if possible, otherwise 30 days after showcase completed (approx. month 36) (est. 9/1/27)
- 5. Protocol summary document for each class of method tested during project.
 - a. Draft protocol documents at month 21. (6/1/26)
 - b. Updated protocol documents with final report at month 36 (9/30/27)
- 6. Training class assessment completed, and if class desired, plan developed to create and deliver class. **Draft assessment report at month 21. (6/1/26)**
- 7. Quarterly reports. Required content, plus enhanced content as noted above.

- 8. Final report. Month 36.
- 9. Final protocol documents updated if needed. As noted under (5) above.
- 10. Peer reviewed publications if warranted by research results. **Draft publications at final** report month 36.

Gantt chart, for reference:

