Executive Summary

3 February 2025

Earthview Corporation Alternative Test Method Request - Executive Summary
Summary

Application Request Number	ALTTECH-92
Submission Date	February 3rd 2025
Company Name	Earthview Corporation
Submission Point of Contact Name	F. Bear Givhan
Product Name	BluBird
Technology Type	Periodic Screening
Target Applicability	Broadly Applicable
Target Emission Leak Rate Threshold	5 kg/hr

1 Technical Summary of Technology:

The Earthview BluBird Gas Monitoring System is an advanced solution that integrates state-of-the-art technology to deliver precise and actionable emissions data. The core of the system is the BluBird device itself, equipped with a sophisticated array of metal oxide sensors. It continuously samples the surrounding atmosphere and transmits data to a cloud-based server every 30 seconds. This information undergoes rigorous validation and complex computations to accurately determine analyte concentrations, source localization and emission rates.

Strategically deployed around a facility using a proprietary algorithm that leverages historical wind patterns, BluBirds ensure optimal site coverage. Every 10 minutes, advanced plume modeling is conducted to provide a comprehensive, site-wide analysis of methane emissions. The resulting emissions data are processed to provide periodic screenings at intervals required by regulations. This seamless fusion of cutting-edge hardware, cloud-based analytics, and expert human oversight empowers customers with reliable, real-time insights to effectively manage and reduce emissions.

2 Notes of the MATM Review Team:

Founded in 2019, Earthview is driven by a mission to support the production of clean, abundant energy for people from all walks of life while ensuring environmental preservation. Energy is the foundation of modern society, and Earthview is proud to be at the forefront of developing technology that supports this critical need.

Since 2021, we have been developing and deploying monitoring technology for oil and gas operators across the United States. Our solutions have identified thousands of leaks in oil and gas operations, making a meaningful impact on reducing emissions. Earthview's team of expert scientists, software engineers, and experienced oil and gas professionals have created a comprehensive solution designed to:

- Minimize methane emissions and reduce gas waste
- Optimize leak detection and repair (LDAR) operations
- Provide actionable performance data for facilities
- Serve as safety alarms for large gas leaks
- And all of this comes at an affordable cost.

Earthview is pleased to submit our Alternative Test Method (ATM) application. Once approved, it will enable the industry to achieve greater efficiency and significantly reduce methane emissions, utilizing a comprehensive, cost-effective network of reliable sensors. These sensors are capable of quickly and accurately detecting, locating, and quantifying emissions.
With continuous monitoring, we have consistently demonstrated substantial emission reductions. We are proud to offer a solution that not only improves energy efficiency but also enhances energy availability.

3 Updates to the Application

Date	**Description**
February 3rd 2024	Application Submitted

4 Summary of Documents Submitted

4.1 Description of Technology

Document Name(s) with extension	Document Description	Confidential Business Information
Earthview Description of Technology public (5kg/hr).pdf	Description of the BluBird continuous monitoring platform with CBI removed.	no
Earthview Description of Technology CBI (5kg/hr).pdf	Description of the BluBird continuous monitoring platform with CBI included.	yes

4.2 Workflow Guidance

Document Name(s) with extension	Document Description	Confidential Business Information
Earthview Workflow Guidance.pdf	Complimentary tool that allows reviewer to track how data moves through Earthview solution.	yes

4.3 Supporting Documents

Document Name(s) with extension	Document Description	Confidential Business Information

detected_confirmed_emission_events_v2.pdf	A partial list of actual emissions events detected by Earthview and confirmed by the customer	No
US_20220357232_A1_I_approved_patent.pdf	Earthview U.S. patent for a gas leak detection system	No
WP_2014_1_TTS_Picarro_drive_by comparisons_5Aug14_data_v2.pdf	Performance assessment of a prototype methane sensing package (BluBird precursor)	No
WP-2021-2-BSE_BlueBird_intercomparison_study_v2.1.pdf	Intercomparison of BluBird v.1 gas sensing package with co-incident measurements at an air quality monitoring site	No
WP-2021-6_EV_inhouse_natgas_BG-JM2-EV-3.pdf	BluBird 1.0 outdoors tests using metered natural gas releases	No
WP_2023_1_tech_note_09_10_23p_CH4_cal_gas_assessment_BluBird2_v4.pdf	BluBird 2.0 tests of sensitivity and algorithm performance using calibration gas	No
WP_2023_2_Earthview_METEC_Remington_test_summary.pdf	Tests of emissions detection at a production pad using metered emission releases carried out by CSU METEC	No
WP_2023_11_CH4_cal_gas_assessment_BluBird2_v2.pdf	Assessment of BluBird 2.0 methane concentration estimates versus known calibration gas concentrations	No
WP-2024-6_EV_METEC_ADED_2024_performance.pdf	BluBird 2.0 performance during the METEC ADED 2024 testing	No
Key_Earthview_METEC_ADED_2024_Takeaways_v2.5.pdf	BluBird 2.0 key takeaways from METEC ADED 2024 testing	No

CBI Submitted Documents:

Document Name(s) with extension	**Document Description**	**Confidential Business Information**

Earthview Executive Summary CBI (5kg/hr).pdf	The executive summary with this table. There are additional CBI documents that have names that are CBI.	Yes