



Borehole Gravity for CCS Integrity Monitoring

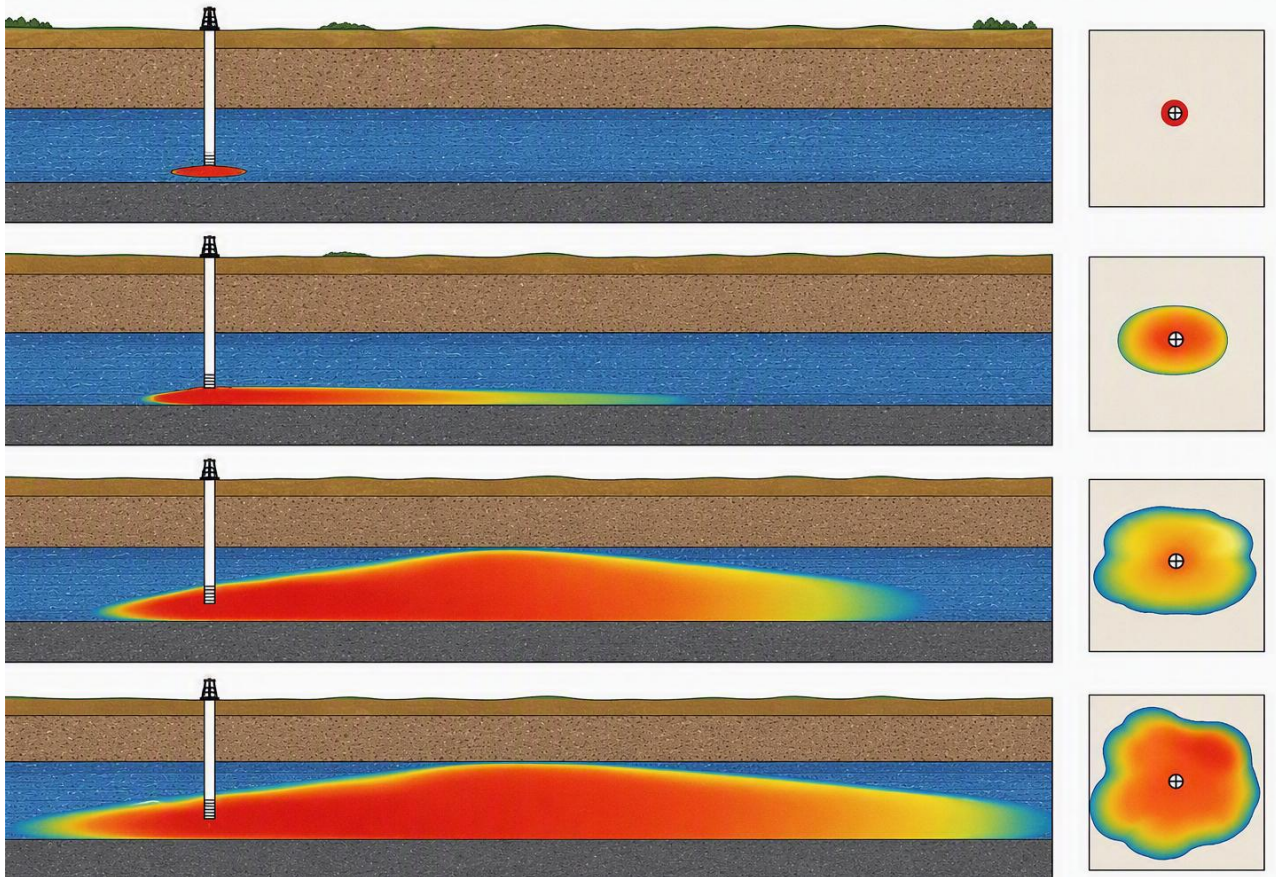
Next Generation Gravity Sensing

Alex Crossland, Silicon Microgravity

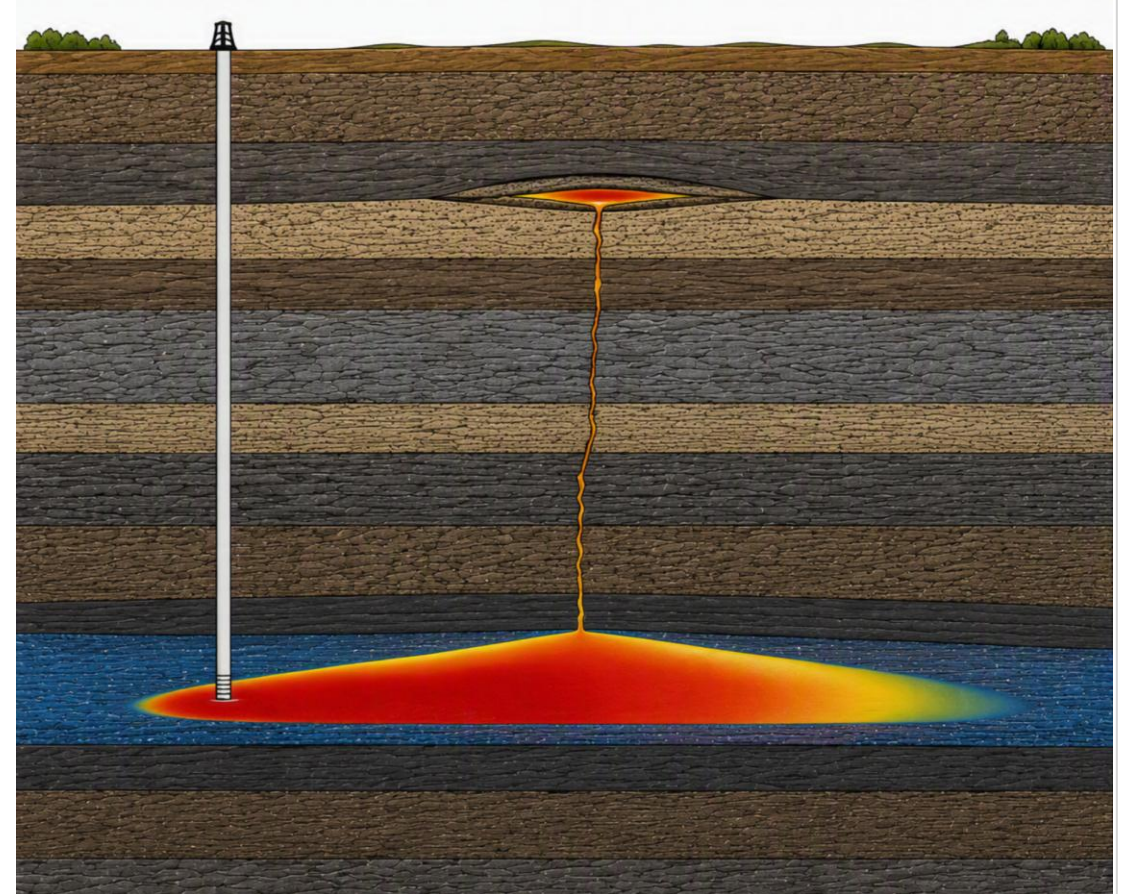


CO2 Storage

Plume Migration Monitoring



Store Integrity Monitoring

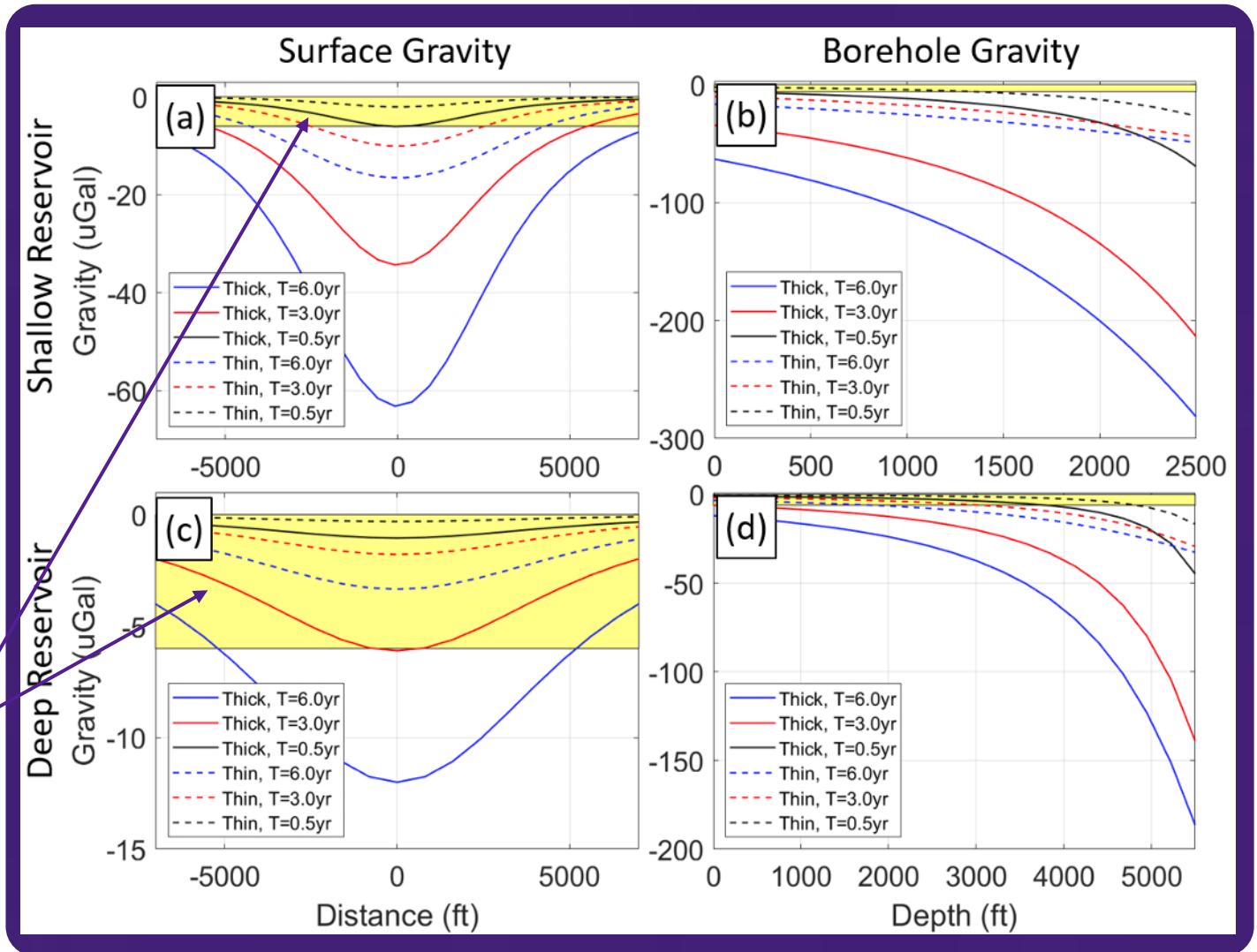


Surface vs Borehole Gravity

Benefits of Borehole Gravity

- Deep-Reading bulk density
- Provides additional model constraints
- Highly cost effective
- Independent of reservoir depth
- Much larger signal than surface
- Changes seen more quickly

Yellow region below
detection limit



SPE215734

CO2 Leak Detection And Conformance Verification Using Borehole Gravity

K. Walker, A. Posenato Garcia, J. Nunn, and G. Lyman

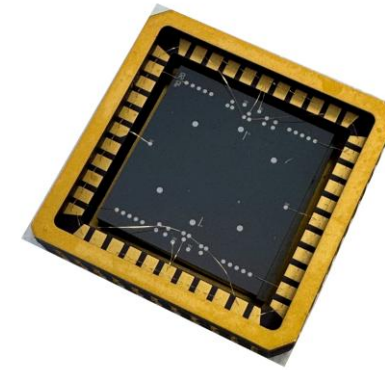
SILICON MICROGRAVITY TODAY

Who we are:

- Cambridge University
- World leaders in Resonant MEMS
- High-performance **accelerometers**, **gyroscopes** and **gravimeters**

Why we are unique:

- 15 Patent families
- Best in class SWaP-C performance



SMG Borehole Gravimeter

Key Specifications

- Single axis Gz
- 5 μ Gal resolution
- Sensor + Gimbal 5 cm
- 74 mm tool OD
- Sub 1 cm depth accuracy
- +95 C temp rating



SMG Borehole Gravimeter

Phased test programme

- Gravity data
- Depth
- Anchor

Environmental

- Depth
- Pressure
- Temperature
- Deviation



Internal Trials Q4 2026

External Trials Q1 2027

Looking for project partners

SMG GRAVITY

OUR VISION

To revolutionise gravity

To unlock new applications for gravity

Static/Land Gravity

Exploration
Monitoring
Infrastructure

Borehole Gravity

Monitoring
Exploration

Mobile Gravity

Exploration
Navigation
Monitoring