

Subsea Microseismic Technology

CO₂ storage monitoring using passive seismic - Full Wave Location (FWL) Technology

Dr Roy Bitrus Director of Sales



Introduction

About Us



TenzorGEO is a microseismic technology company.



Hardware – Ocean Bottom Seismometers (OBS) and software – TenzorVision.



Our vision is to aid in unlocking the full potential of oil and gas fields to enable our clients maximise the economic potential of their reservoirs while contributing to netzero.





arche



- Full Wave Location (FWL) Technology
- FWL method, processing and interpretation
- Application and Case studies

TenzorGEO's Solution



Full Wave Location (FWL) Technology Basics



Illustration of the moment tensor



TenzorGEO's FWL technology Method

Summary Workflow



()



forming events



The development of microseismic activity in the process of injection



3D view of microseismic activity with axial planes



Full Wave Location (FWL) Technology



Case Study Fluid Injection Monitoring

GEO

Tenzor

Monitoring water flooding

Devonian terrigenous deposits Location: Republic of Tatarstan, Russia **Objective**: Estimation of formation fluid direction, determination of filtration channels



Maps of accumulated micro-seismic activity

Full Wave Location (FWL) Technology



Technology Advancement for CO₂ Injection Monitoring

Advancing the FWL application to provide cost effective continuous long term monitoring of CO₂ injected into the subsurface for storage



Hardware





- Reengineer the current OBS to make it fit for purpose.
- Continuous permanent/temporal monitoring of CO2 storage.

<u>Software</u>





Test and evaluate the software to ensure it is capable to handle and process continuous flow of data.

Workflow



•

- Develop an efficient and cost effective workflow suitable for the CCS industry
- Adaptable to different fields and engineering assets/infrastructure



TenzorGEO's Solution



Get in touch

Open to field testing on active CO₂ injection storage site

Ivan Starostin CEO

Dr Roy Bitrus Director of Sales

- **T**: +44 (0)1730 622044
- E: <u>ivan.Starostin@tenzorgeo.co.uk</u>
- T: +44 (0)7854859911
 E: <u>roy.bitrus@tenzorgeo.co.uk</u>



