

MAG021-14

会場: 201A

時間: 5月26日14:00-14:15

## 日本の地質特性を考慮した地震波探査によるCO<sub>2</sub>モニタリングの有効性の検討

### Numerical simulation on verification of availability of time-lapse seismic survey storing CO<sub>2</sub>

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Three-dimensional reflection seismic survey is one of the prominent methods in monitoring CO<sub>2</sub> injected into deep saline aquifers. We would deploy OBC semi-permanently to CO<sub>2</sub> injection sites. Permanently placed OBC has much merits in CO<sub>2</sub> monitoring, because OBC is suitable for repetition survey and would be low cost compared to other technologies. Repetition survey enables us to collect seismic data by same receiver geometry and would reduce noises from difference of positions or instruments. We build a model based on a real three-dimensional seismic volume and take ray tracing with changing the number of receivers. With this model, we analyzed these three-dimensional seismic data and seismic volume. Our numerical simulation also considered the noise levels and we investigated effects of receiver numbers and noise levels.