

CCS/CCUS Technology for INPEX

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INPEX: Our Business, Our Mission





We are committed to contributing to the creation of a brighter future for society through our efforts to develop, produce and deliver energy in a sustainable way.

Indonesia



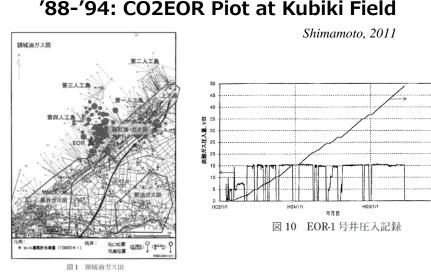
Japan



INPEX

INPEX: CCS/CCUS History





'88-'94: CO2EOR Piot at Kubiki Field



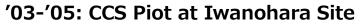
H06/1/1







Ichthys LNG Plant @Darwin, AUS



MS4/BLS 2005/1 10, 400 ton

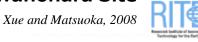
. Source





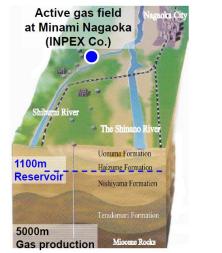
0.0

-1.0 -1.5 -2.0 -2.5 -3.0 -3.5 -4.0 -4.5 -5.0 -7.5 -10.0 -20.0



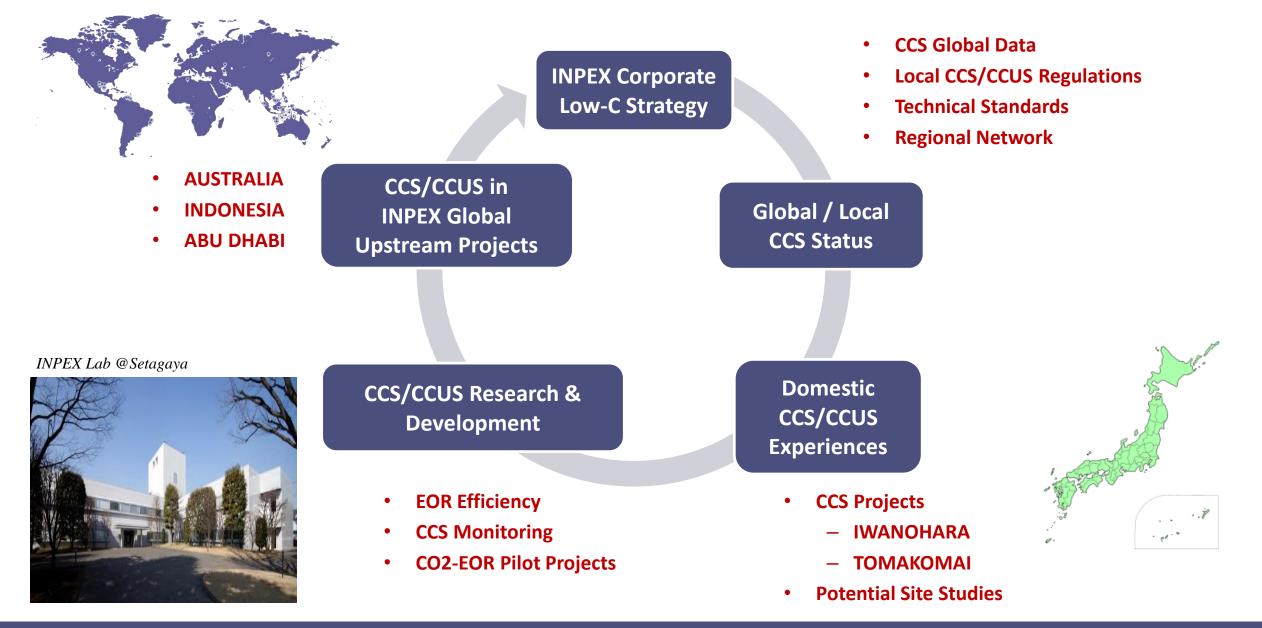
IW-1

Nagaoka CO2 / Seismic Tomograph



INPEX Current CCS/CCUS Activities







INPEX Technology Deployment Approach



CO2 EOR SWEEP EFFICIENCY with FOAM Technology CO₂ injector CO₂ Foam injector Producer Unsuccessful example of Improvement by CO₂ Foam EOR Conventional CO₂ EOR Gravity override CO_2 Oil Oil CO₂ Foam Stable oil displacement Remaining oil

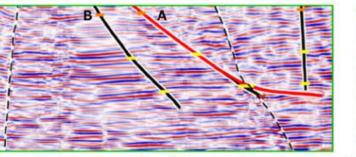
Sweeping only high permeability layer

MONITORING RESEVOIR with FIBER OPTICS

From INPEX Homepage



Optical fiber



DAS/VSP (inside dashed lines) inset in 2D seismic section

2D seismic section

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Moves Forward



- CCS and CCUS technology are crucial for INPEX to accomplish our Mission, *i.e.*, *Develop*, *Produce*, *and Deliver Energy in a Sustainable manner*, and *transform ourselves to an Energy Provider in the next Age*.
- Amongst available Low-Carbon Strategy options, CCS/CCUS enable us costeffective reduction of large volume CO2, taking advantage of our inherent technology, *i.e., subsurface development and CO2 removal*.
- CCS/CCUS is one of top R&D foci for INPEX, and multi-dimensional efforts are ongoing to make it more practical and efficient, jointly with our partners.
- INPEX is keen to contribute to enhanced application of CCS/CCUS in the Asia-Pacific region, our main battlefield, in collaboration with our domestic/international partners, and appropriate policies and economic incentives will accelerate our move.