The Emerging Estate of "Produced" Water: The Intersection of Ownership, Disposal, Pore Space and Storage

50th Annual Ernest E. Smith Oil, Gas and Mineral Law Institute

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Topics Discussed

WHAT IS PRODUCED WATER?

WHO OWNS PRODUCED WATER?

CURRENT CASE AT THE TEXAS SUPREME COURT

PRACTICAL CONSIDERATIONS

What is the big deal with Produced Water?

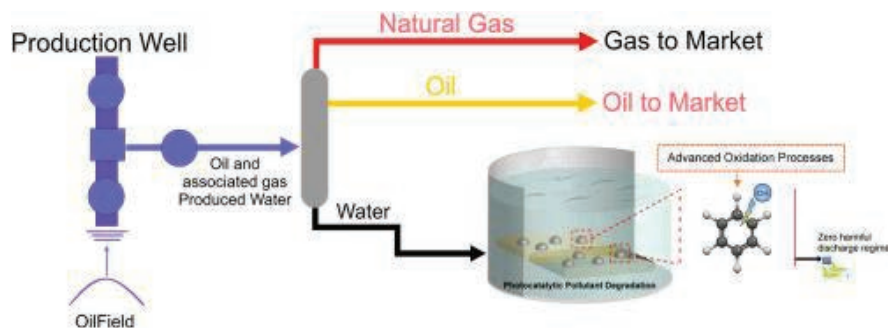**The trash has now become the treasure:**

- Millions of Dollars can be earned from treating Produced Water

4 billion barrels per year (~511,000 ac-ft) including:

- Lithium, Cadmium, other rare earth minerals
- Useable non-potable water

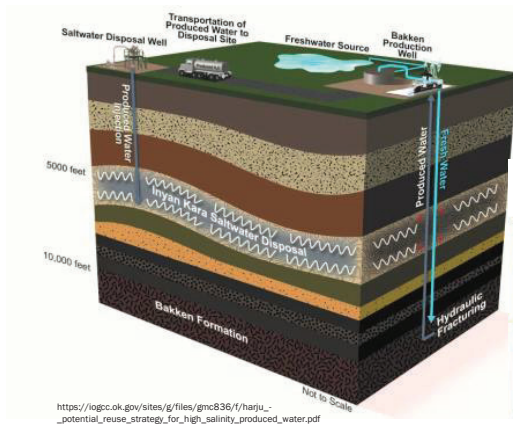---

What is Produced Water?

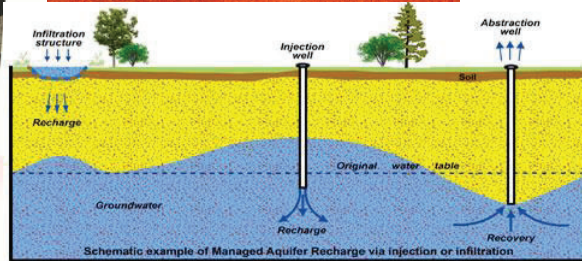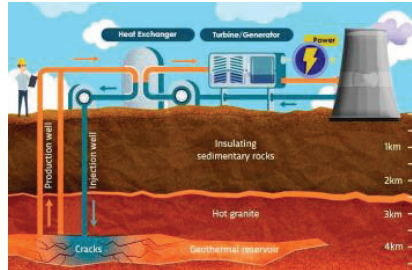- Fluid byproduct brought to the surface during fracking operations/exploration

Kingsley Tamunokuro Amakiri, Anyela Ramirez Canon, Marco Molinari, Athanasios Angelis-Dimakis, Review of oilfield produced water treatment technologies, Chemosphere, Volume 298, 2022, 134064, ISSN 0045-6535, https://doi.org/10.1016/j.chemosphere.2022.134064.

Emerging Produced Water Technologies

- GHCR: Geologic, Homogenization, Conditioning, and Reuse
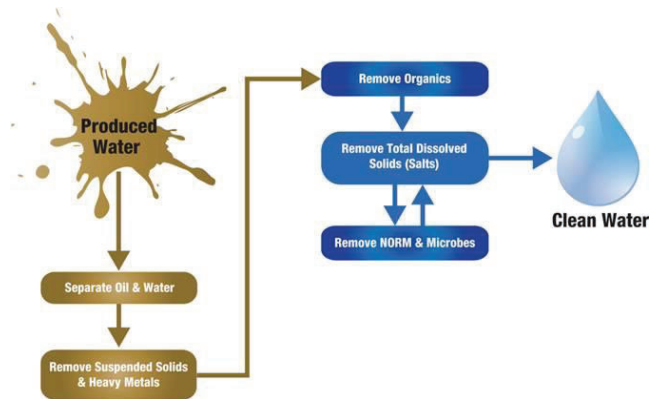- Geothermal Energy
- Aquifer Recharge*

https://iogcc.ok.gov/sites/g/files/gmc836/f/harju_-_potential_reuse_strategy_for_high_salinity_produced_water.pdf

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How Value is Created?

- Operator does not have to pay for groundwater

- Operator then uses groundwater for operation

- Treats produced water

- Sells or Reuses treated produced water

https://www.oil-gasportal.com/produced-water-treatment/?print=print

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Title search: "Produced" Water: The Intersection of Ownership, Disposal, Pore Space and Storage

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