

Geologic CO₂ Storage

- *Managing Uncertainties*

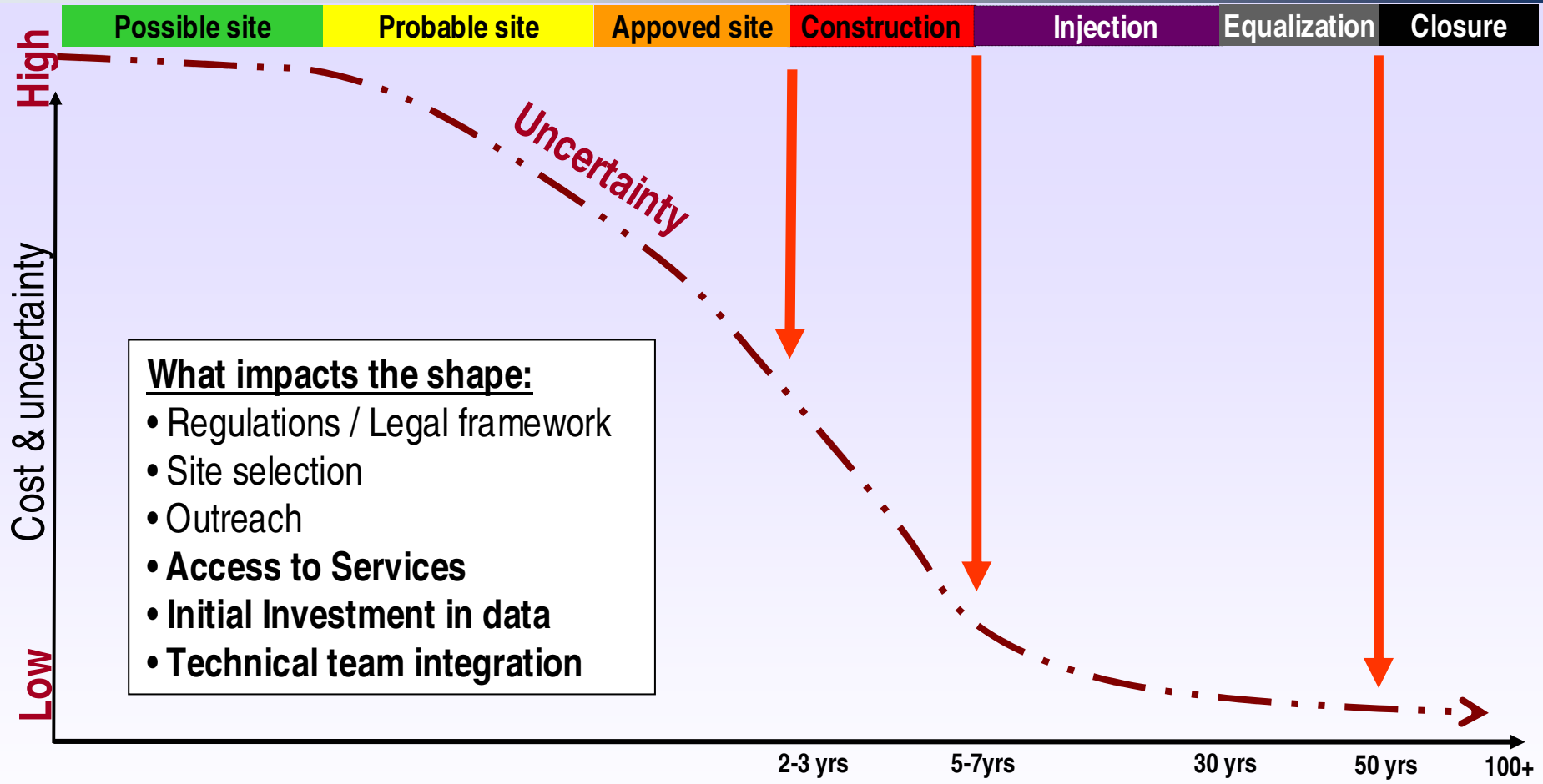
John Tombari
Vice President North & South America
Schlumberger Carbon Services
GTCOct 2008
tombari@slb.com

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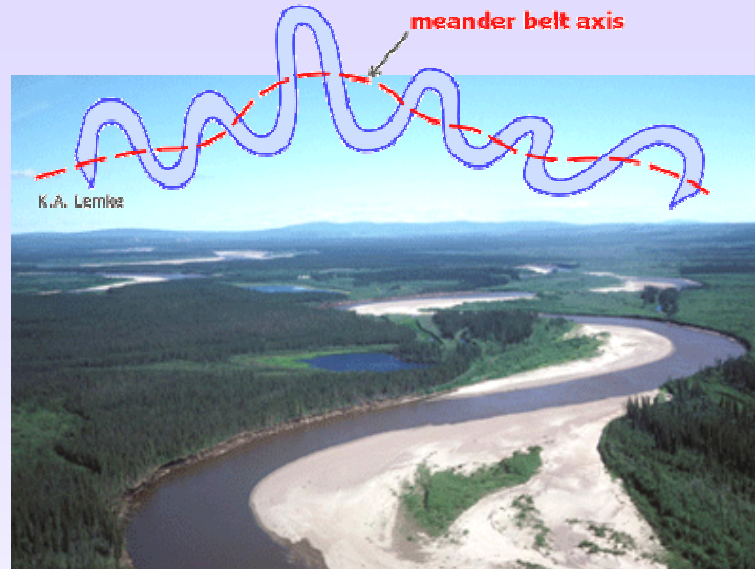


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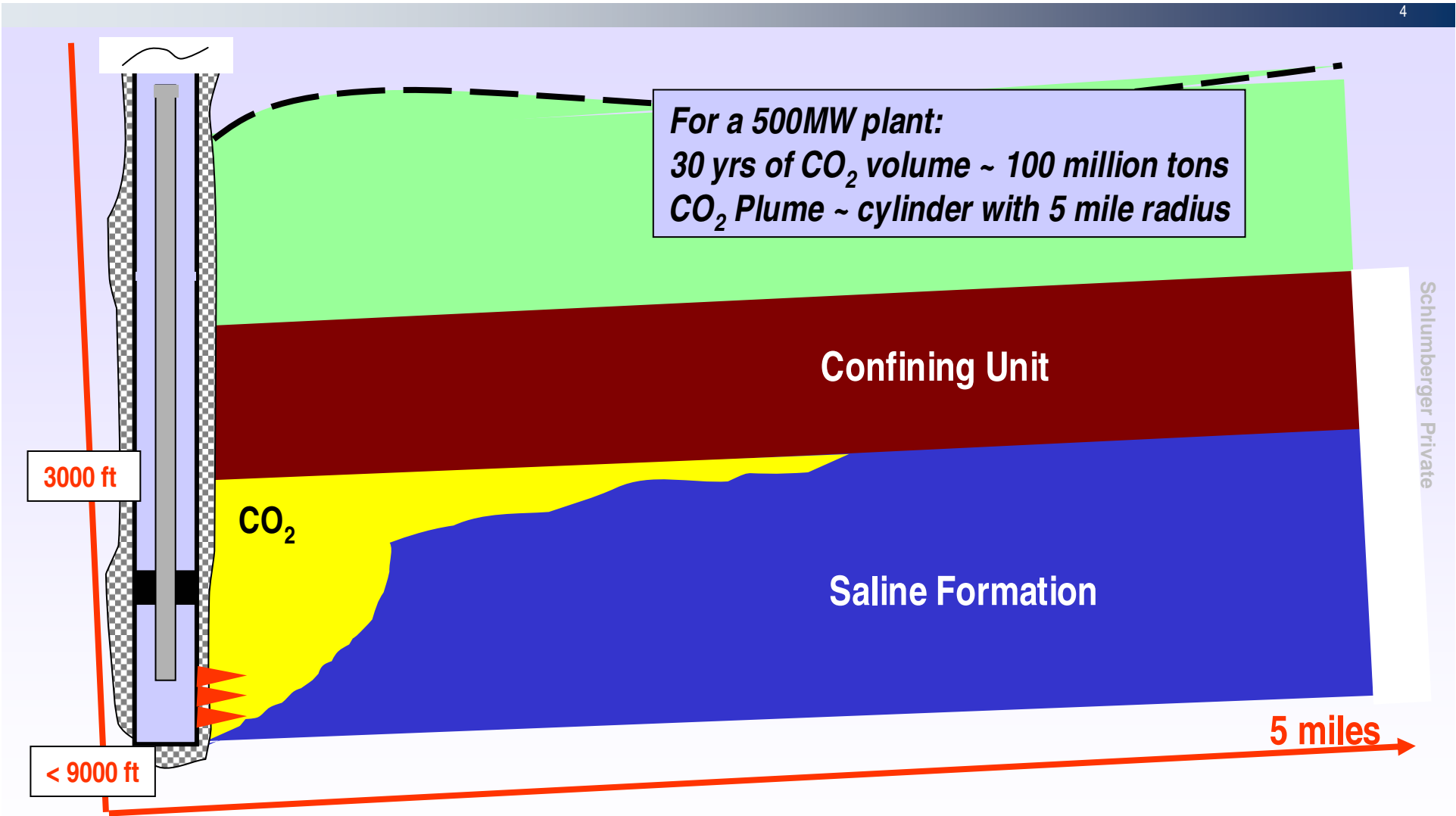
Geologic storage project timeline



Finding a storage site



Saline storage fundamentals



For a 500MW plant:
30 yrs of CO₂ volume ~ 100 million tons
CO₂ Plume ~ cylinder with 5 mile radius

3000 ft

< 9000 ft

CO₂

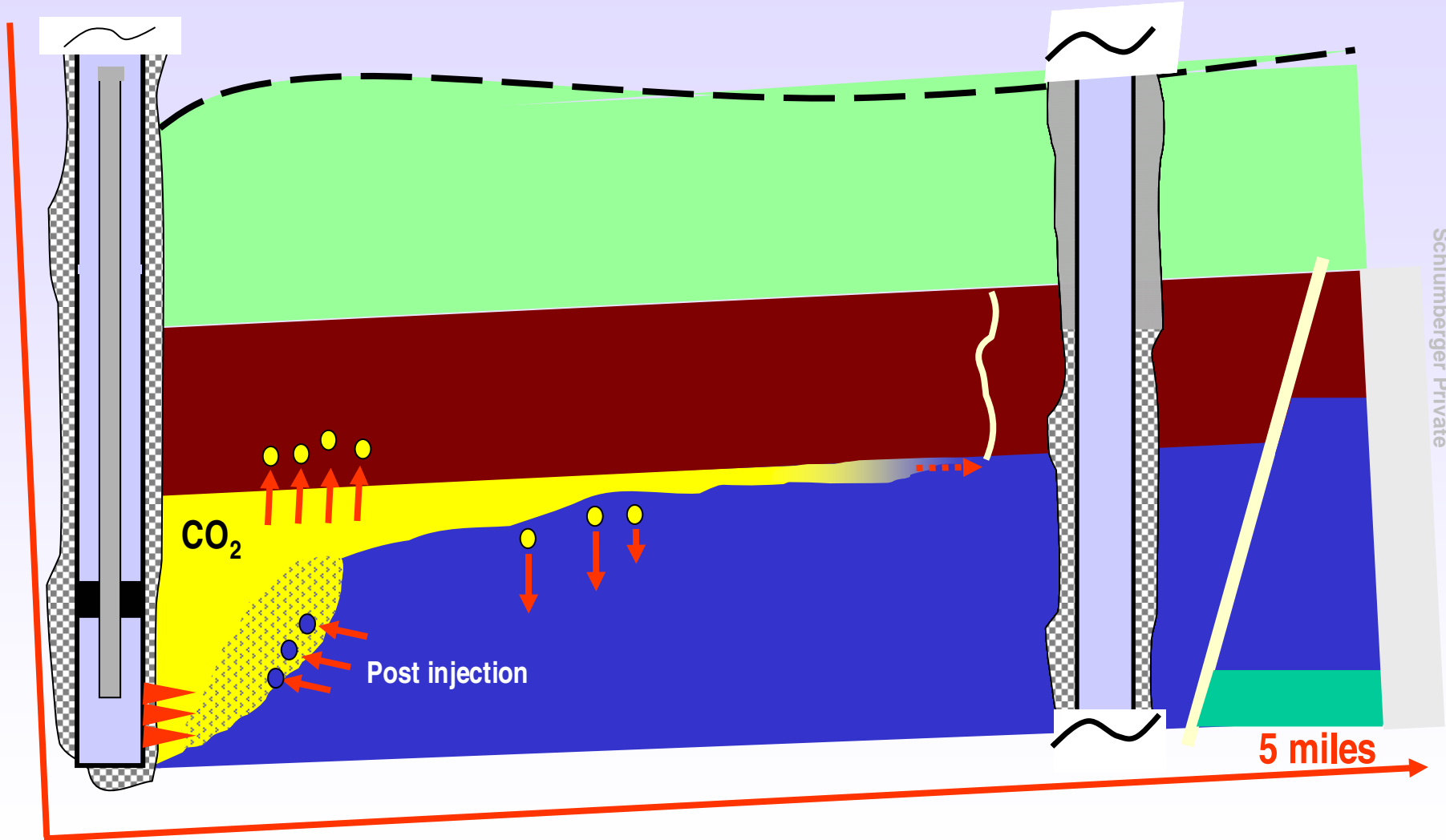
Confining Unit

Saline Formation

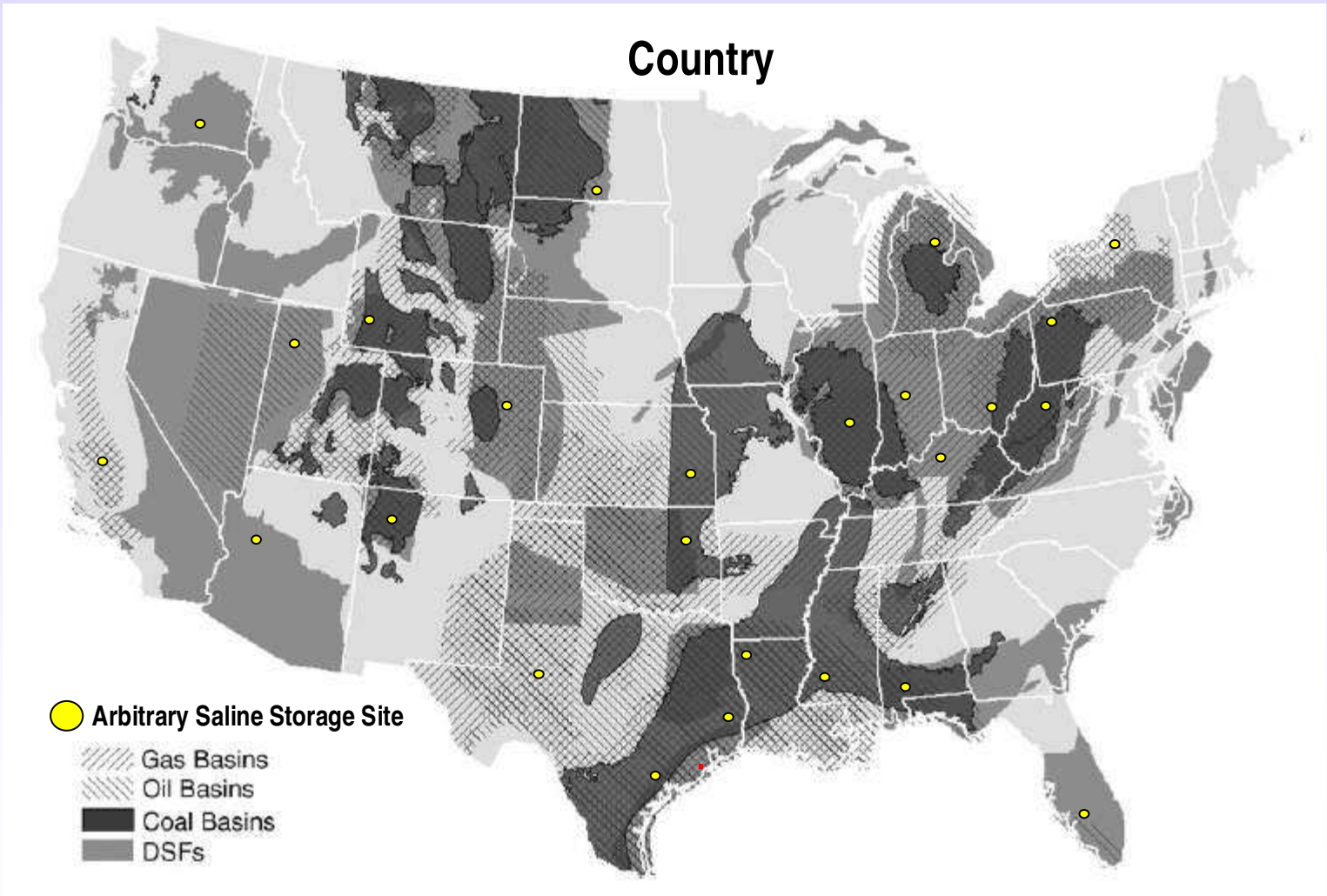
5 miles

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Containment

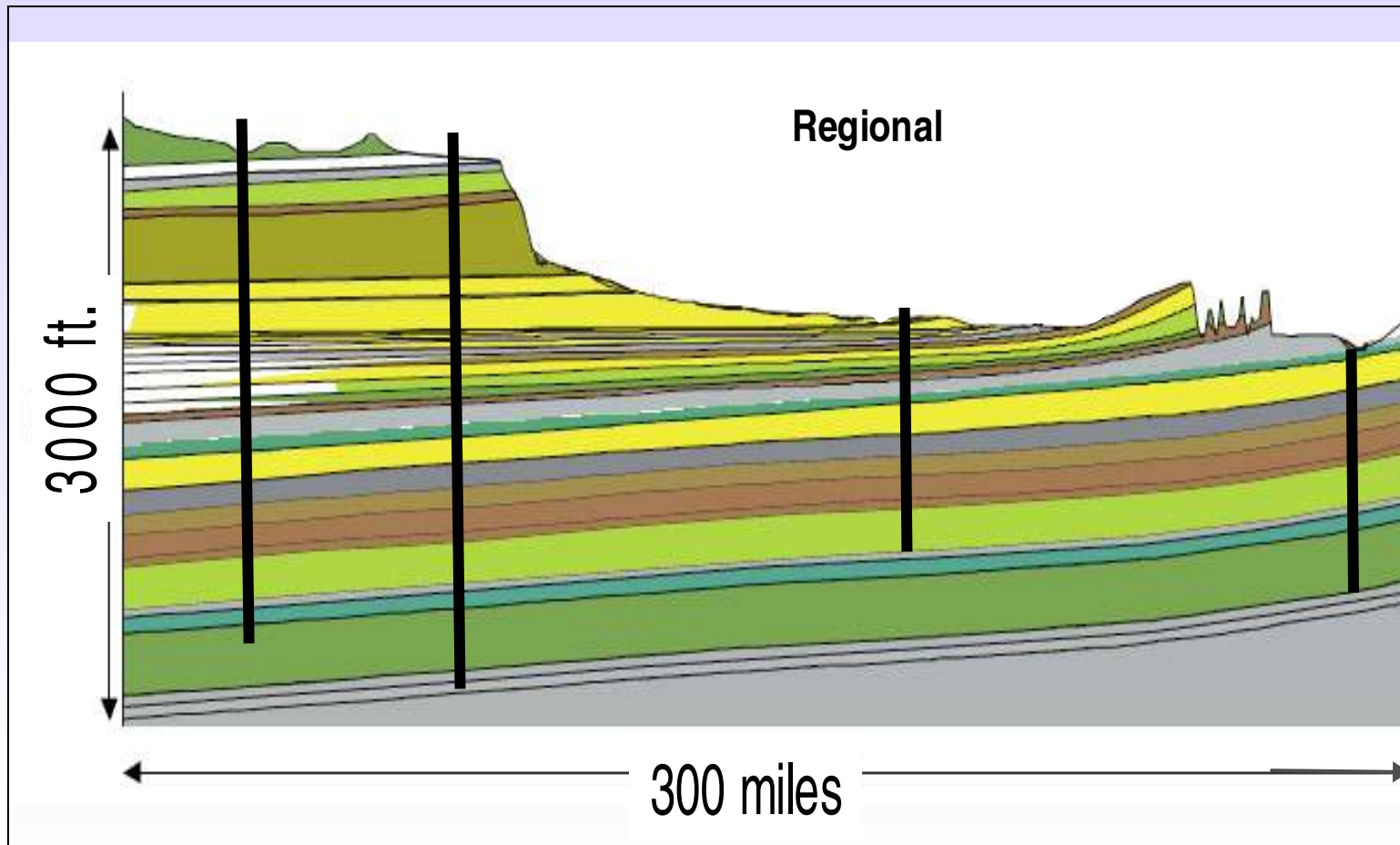


Site selection & characterization

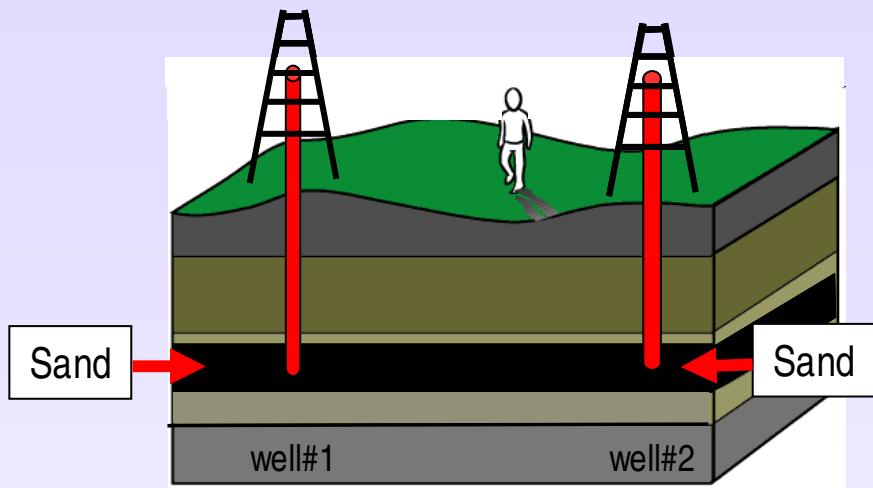


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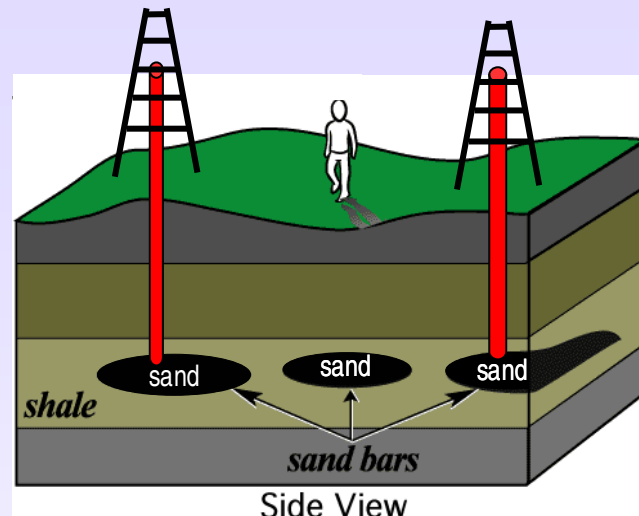
A regional study helps but...



Uncertainty

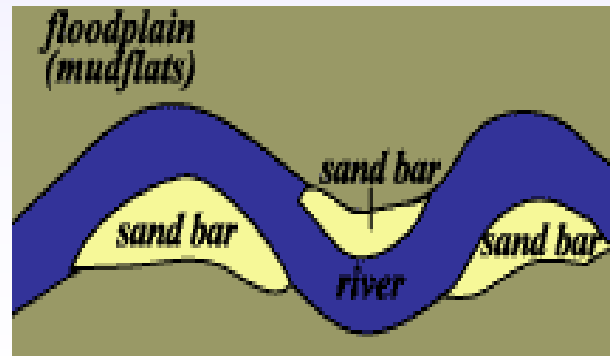


possible scenario



correct scenario

reality - top view

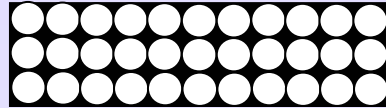


How to get started

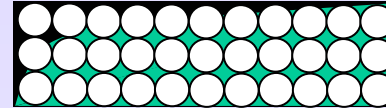
Bulk Volume



X Porosity X



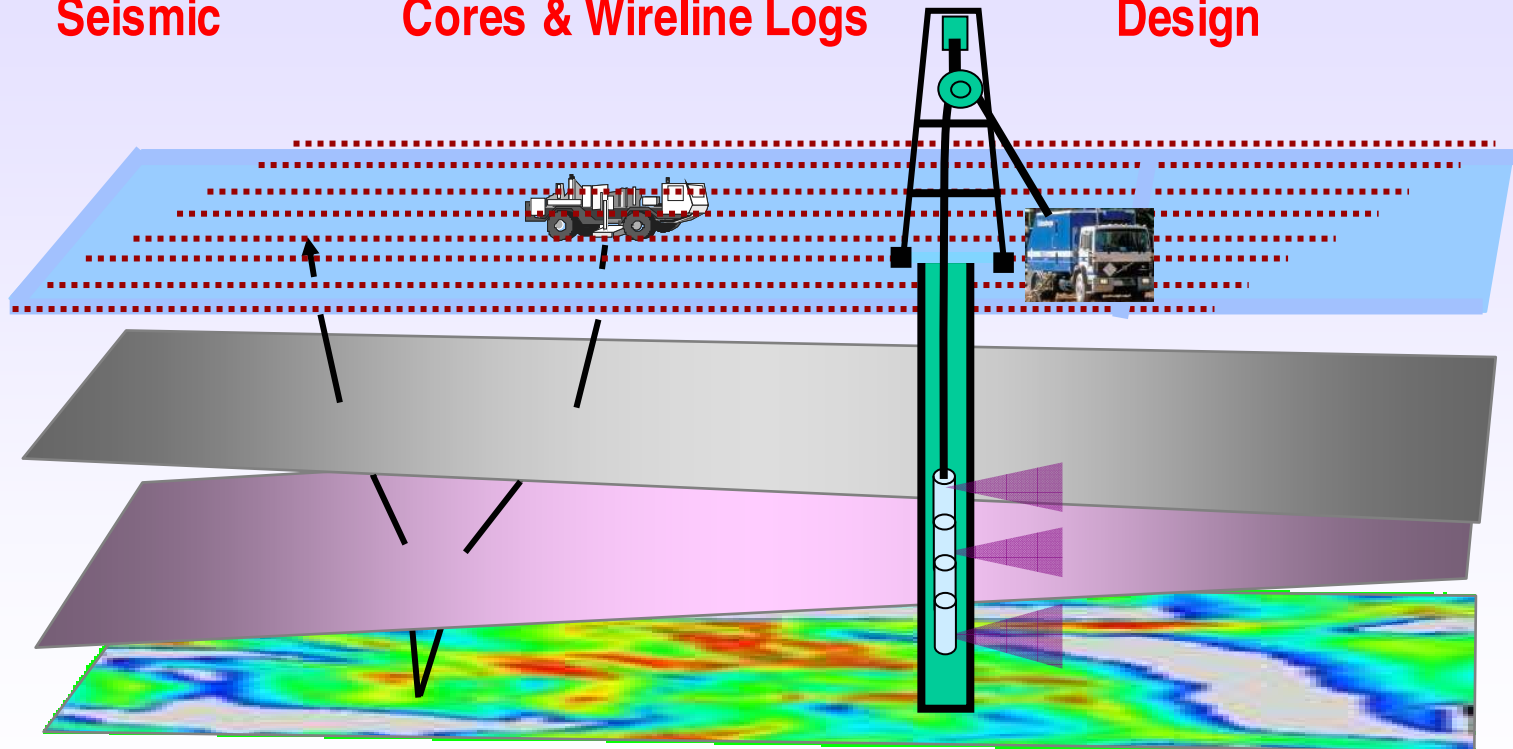
Storage Factor



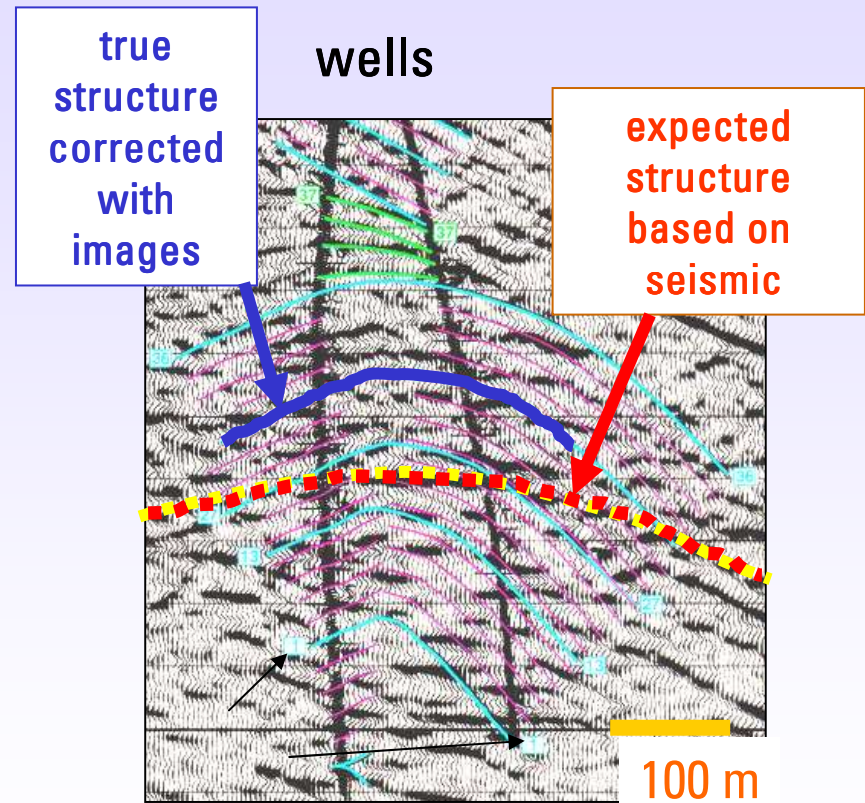
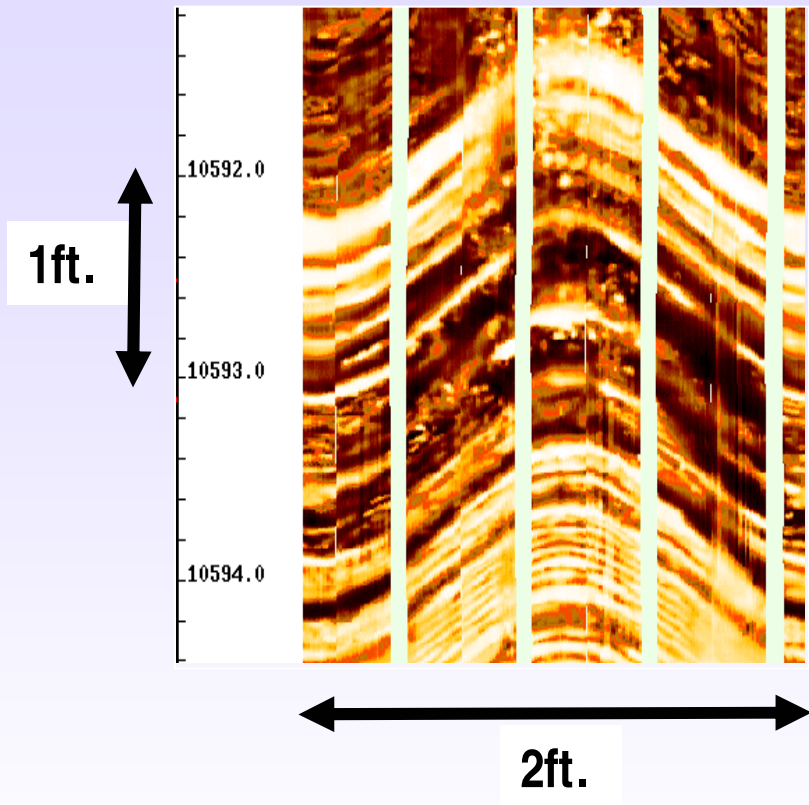
Seismic

Cores & Wireline Logs

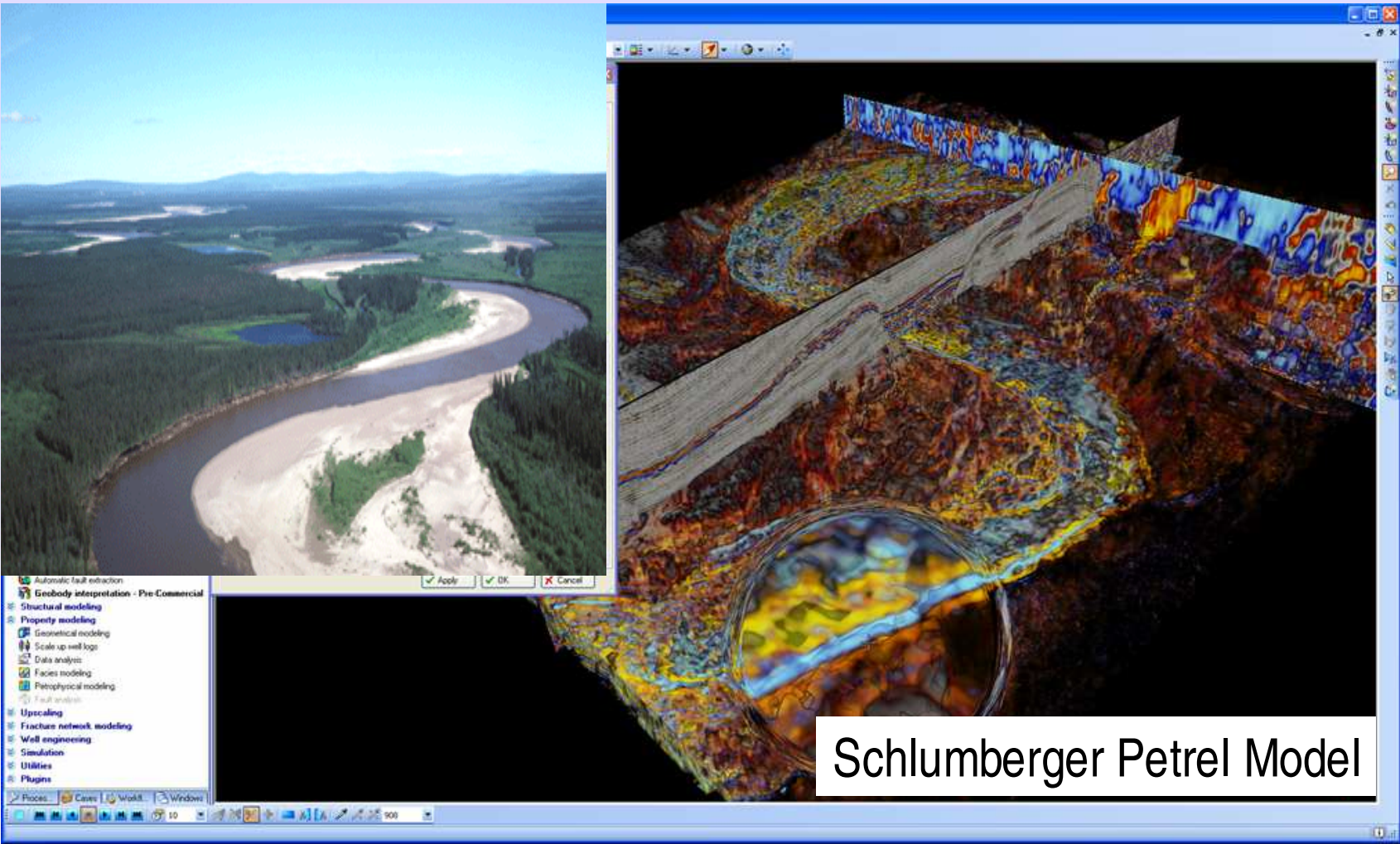
Design



Adding images from wells to seismic data



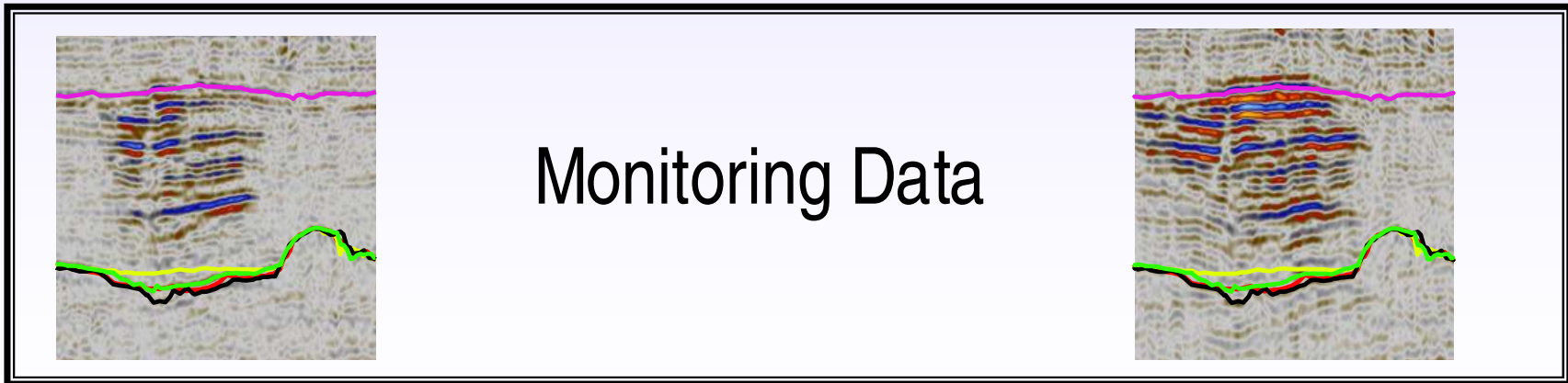
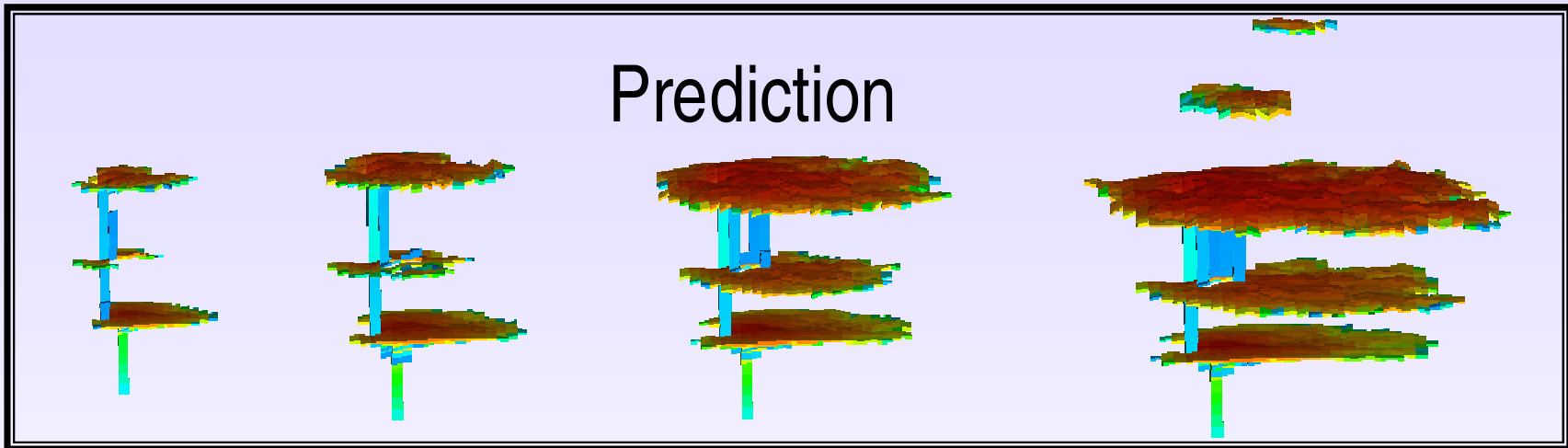
Static Earth Modeling



Predictive modeling

6 months

3 years



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