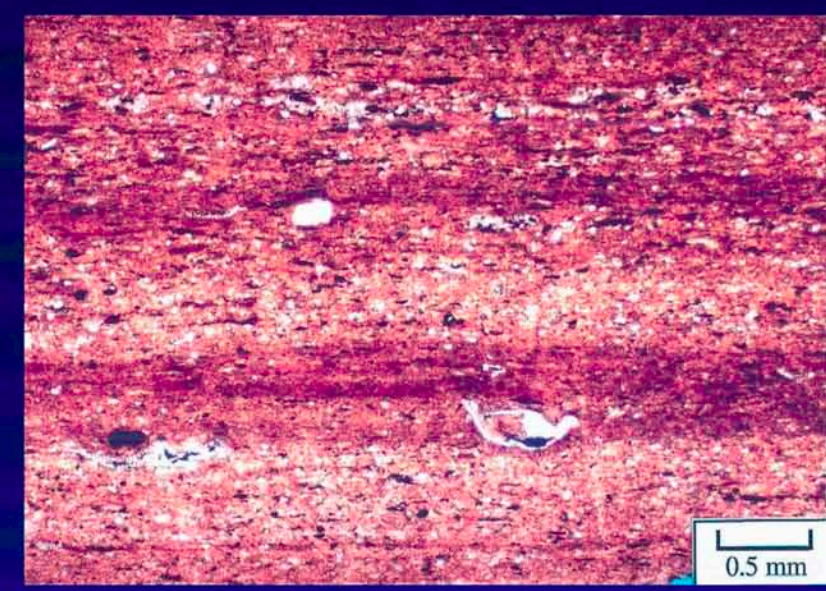


Deepwater Seal Types

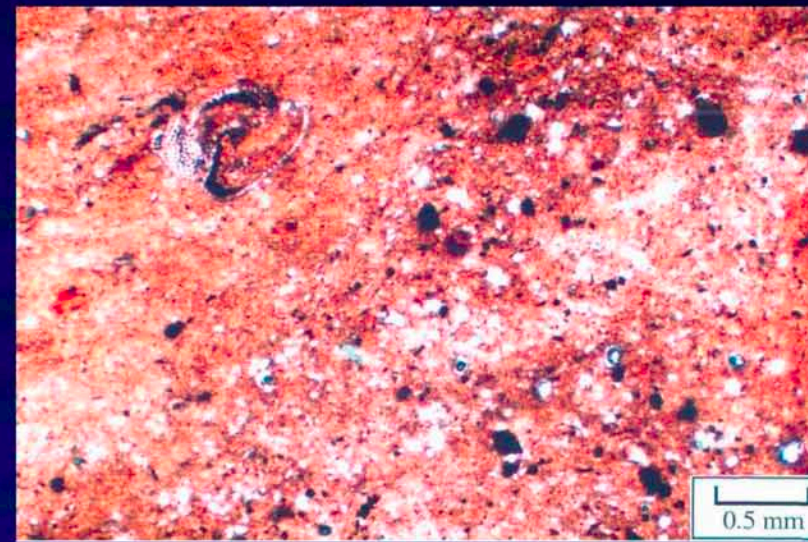
Seal capacity enhanced by diagenesis (early marine cementation)



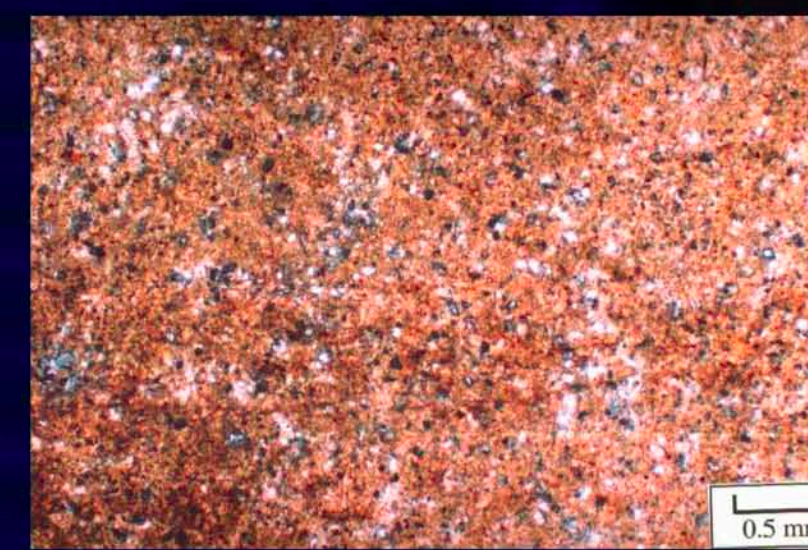
Shale type 1



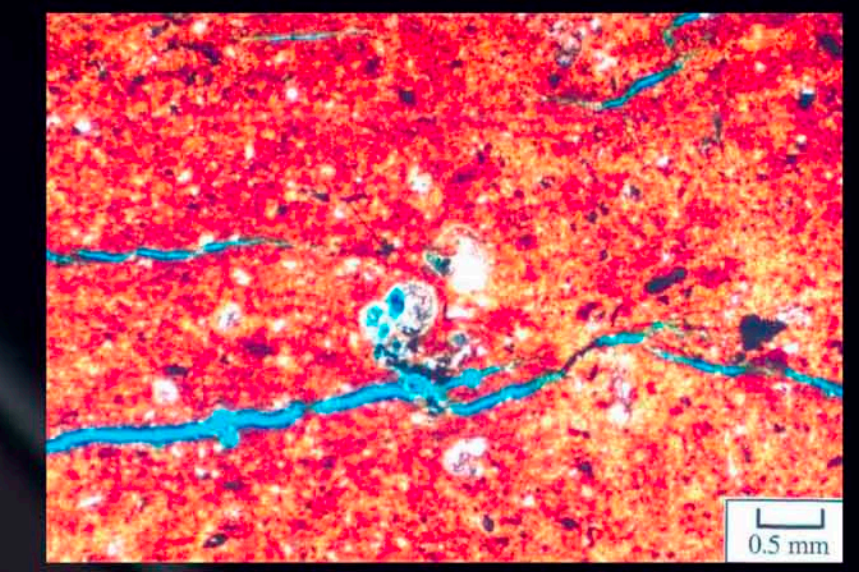
Shale type 2



Shale type 3



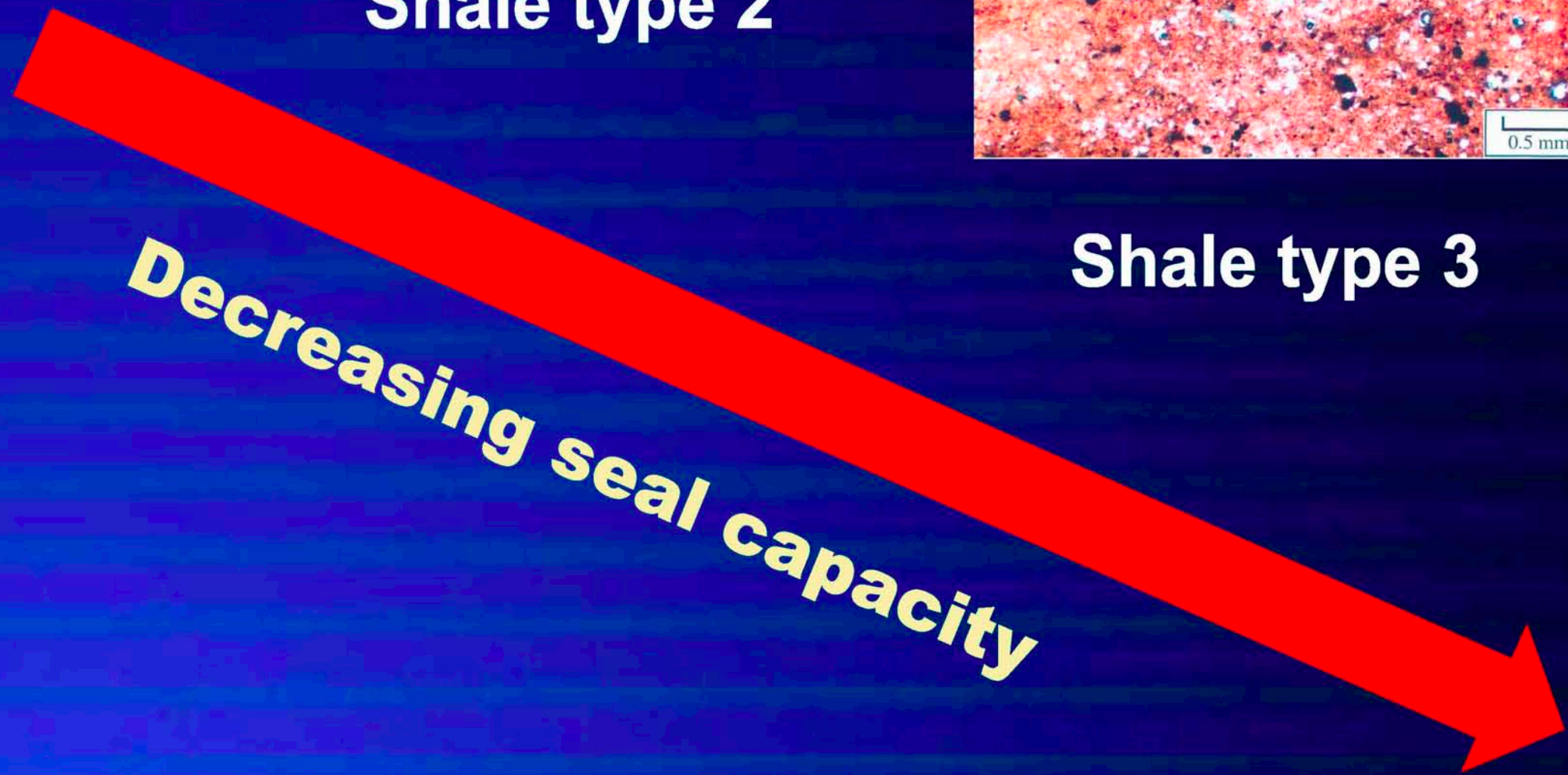
Shale type 4



Shale type 6

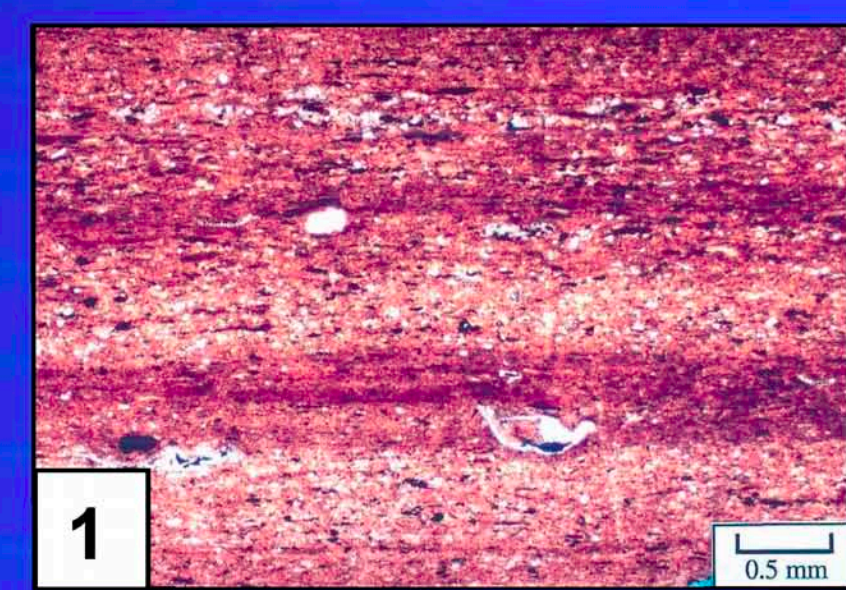


Shale type 5

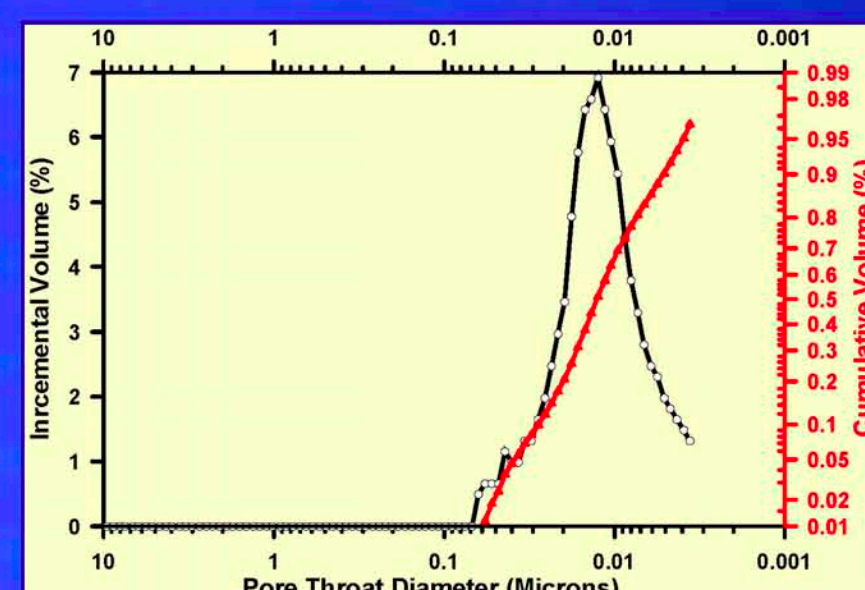


Seal capacity controlled by shale fabric and texture

Shale Summary



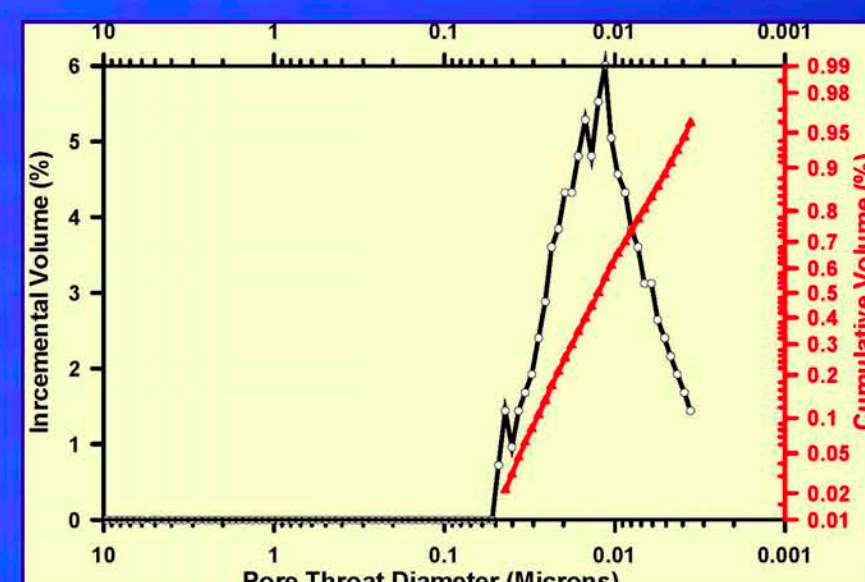
1



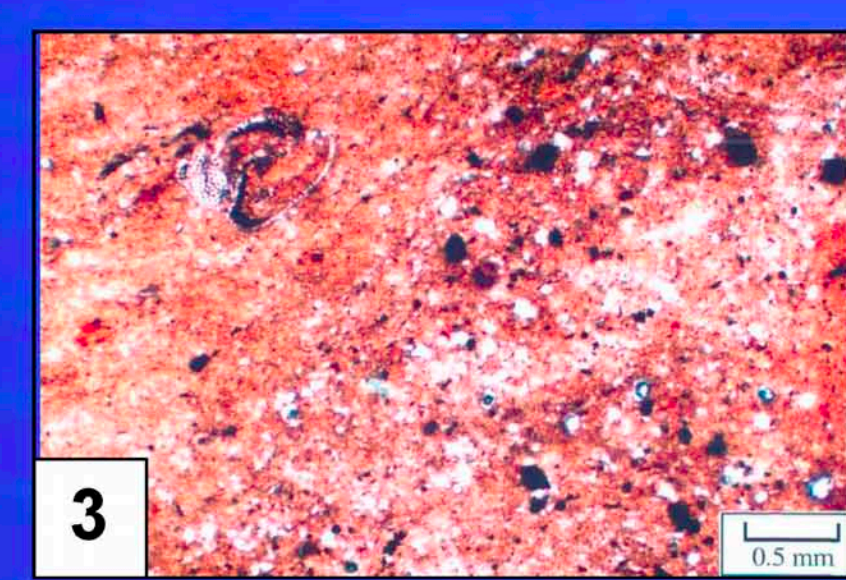
Shale Type 1
Well-laminated and slightly silty shale



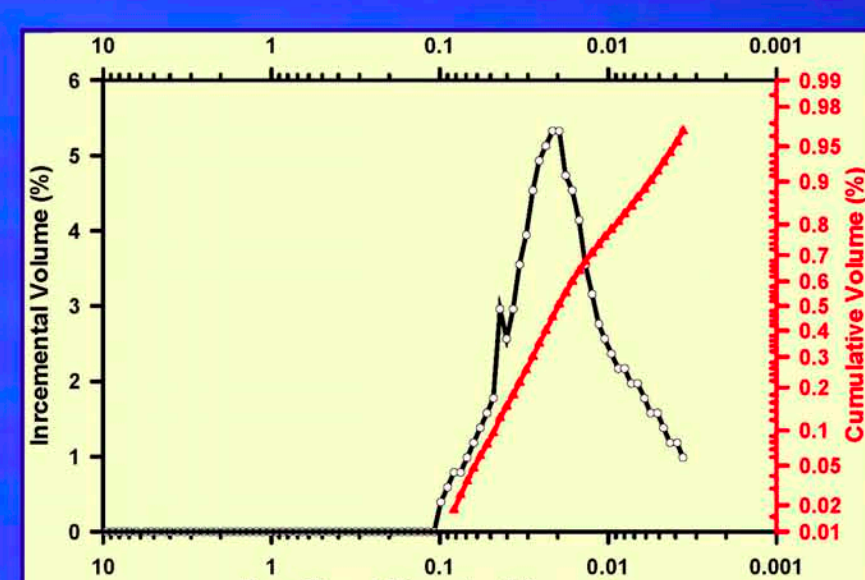
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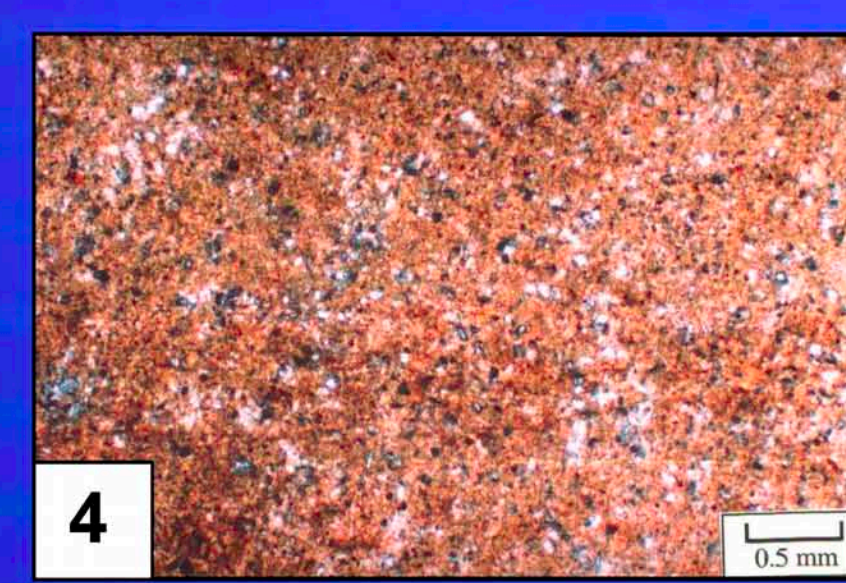
Shale Type 2
Laminated and moderately silty shale



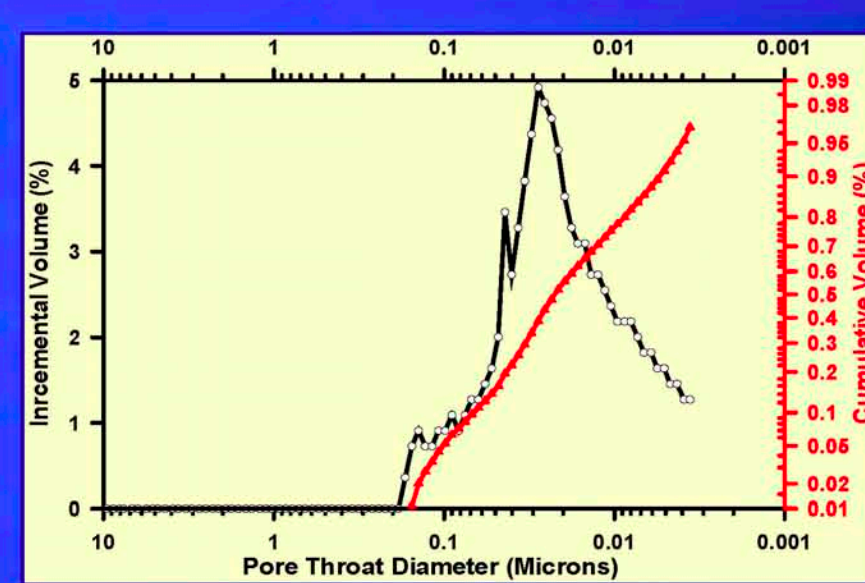
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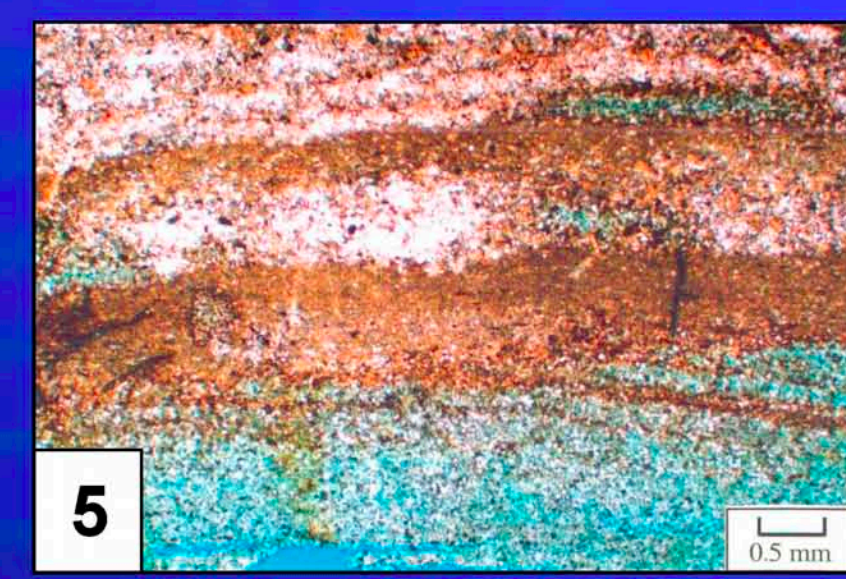
Shale Type 3
Mottled and moderately silty shale



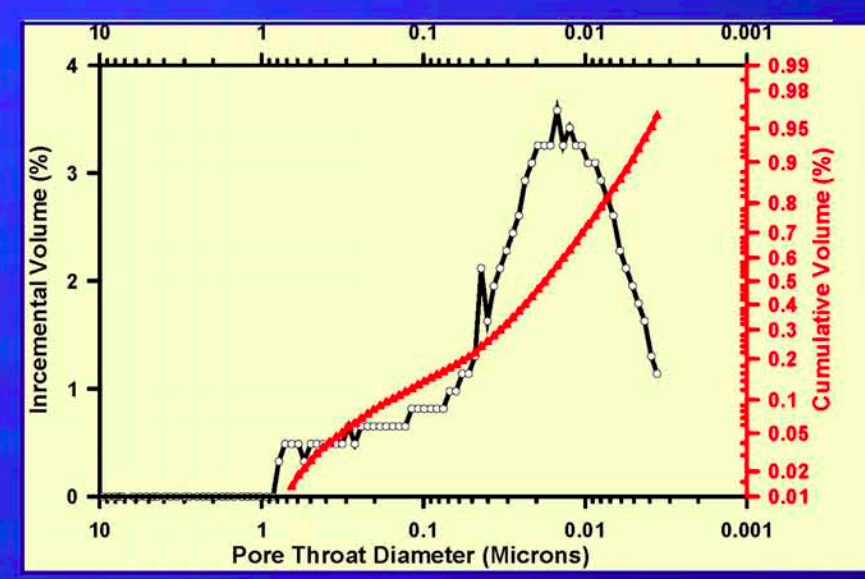
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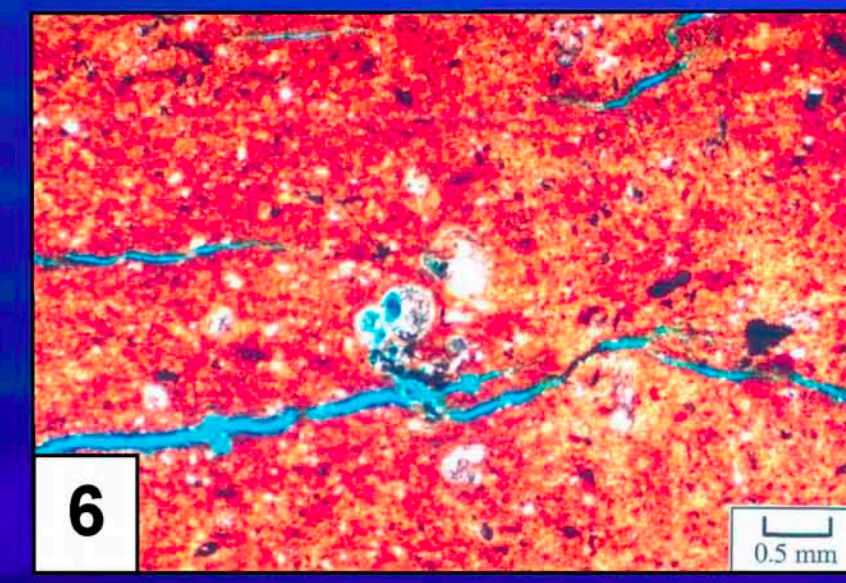
Shale Type 4
Mottled and very silty shale



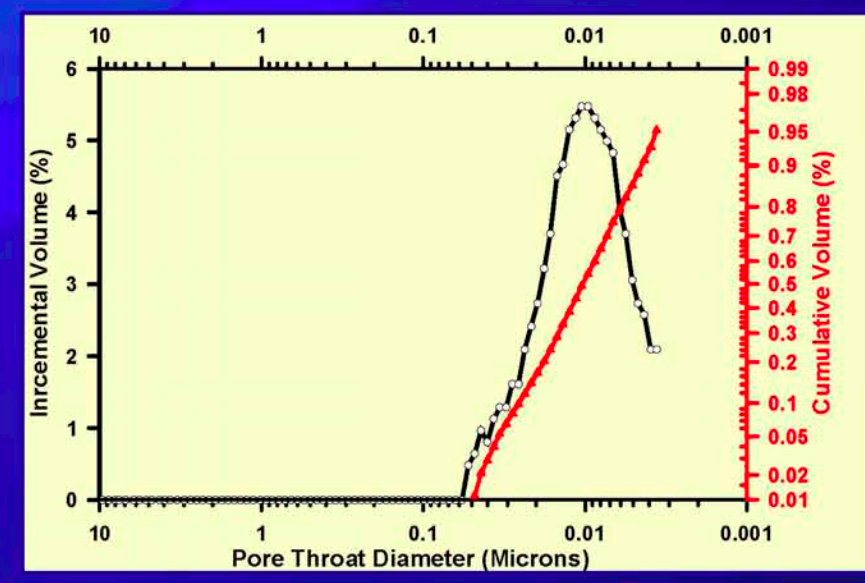
5



Shale Type 5
Interlaminated shale and siltstone



6



Shale Type 6
Slightly silty and calcareous claystone

Shale Type	Clay	Silt	Carbonate	10% MICP	Modal Pore Throat Diameter
1	72%	17%	2.3%	8,394 psia	0.0104 microns
2	63%	22%	5.6%	7,448 psia	0.0131 microns
3*	61%	35%	3.7%	4,947 psia	0.0151 microns
4	59%	37%	5.1%	3,177 psia	0.0214 microns
5	56%	41%	2.3%	1,360 psia	0.0247 microns
6	64%	18%	16.2%	7,653 psia	0.0125 microns

* "average" GOM shale

Shale Type	Clay	Silt	Carbonate	10% MICP	Shale Fabric
1	72%	17%	2.3%	8,394 psia	well-laminated
2	63%	22%	5.6%	7,448 psia	faint laminations
3	61%	35%	3.7%	4,947 psia	clay mottles
4	59%	37%	5.1%	3,177 psia	silt mottles
5	56%	41%	2.3%	1,360 psia	silt laminae
6	64%	18%	16.2%	7,653 psia	massive

Shale Type	Clay	Silt	Carbonate	10% MICP	System Tract
1	72%	17%	2.3%	8,394 psia	upper TST
2	63%	22%	5.6%	7,448 psia	middle TST
3	61%	35%	3.7%	4,947 psia	HST
4	59%	37%	5.1%	3,177 psia	HST/LST
5	56%	41%	2.3%	1,360 psia	LST
6	64%	18%	16.2%	7,653 psia	condensed