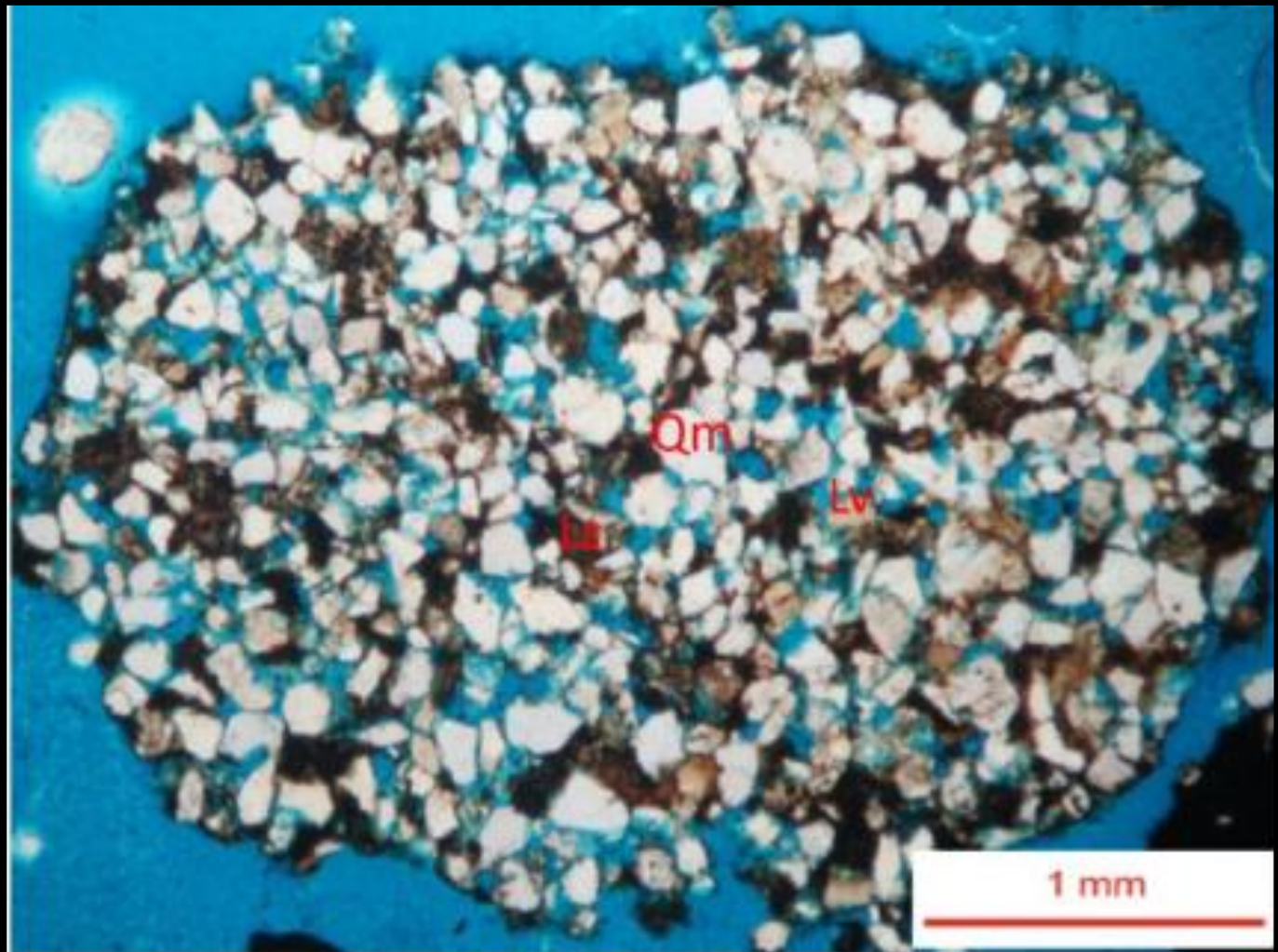


Assessment of the LISAMA Formation as oil reservoir. Middle Magdalena Valley.



Medardo Chacon

Lithology



Moderately to well-sorted, fine-grained sublitharenite (sensu Folk, 1980). The sample is made up of monocrystalline quartz, clay rock fragments, and volcanic fragments. Good porosity. Parallel nicols.

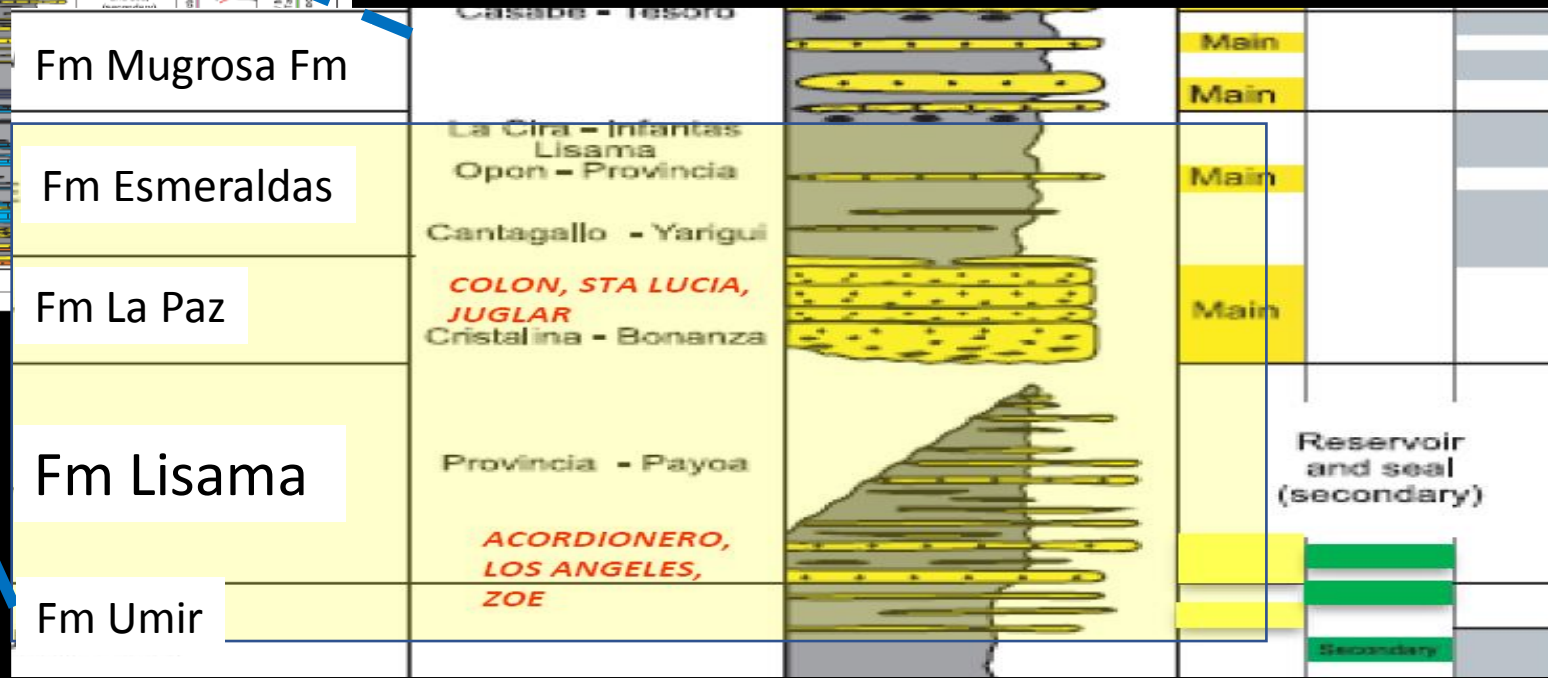
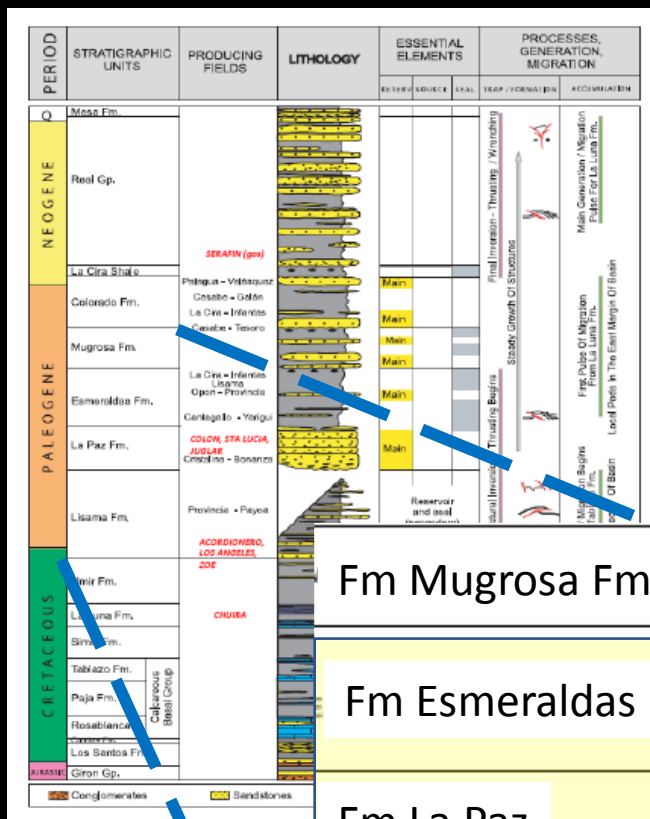
San Roque 1. 8240'-8250'

Formación Lisama

Stratigraphic Aspects

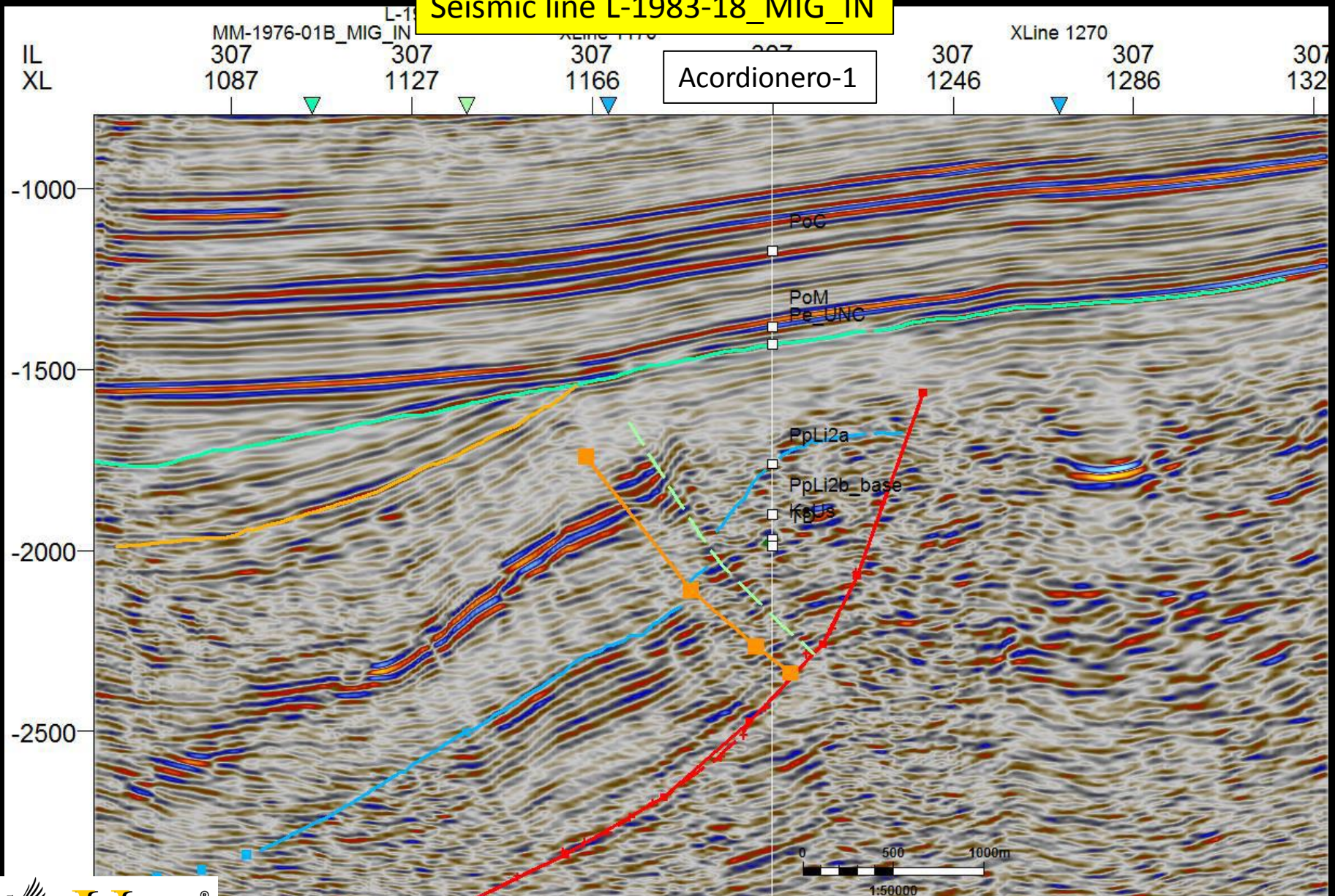


The Lisama formation lies concordant and transitional upon the so-called Umir. The upper contact with the La Paz formation is represented by an **ANGULAR UNCONFORMITY**



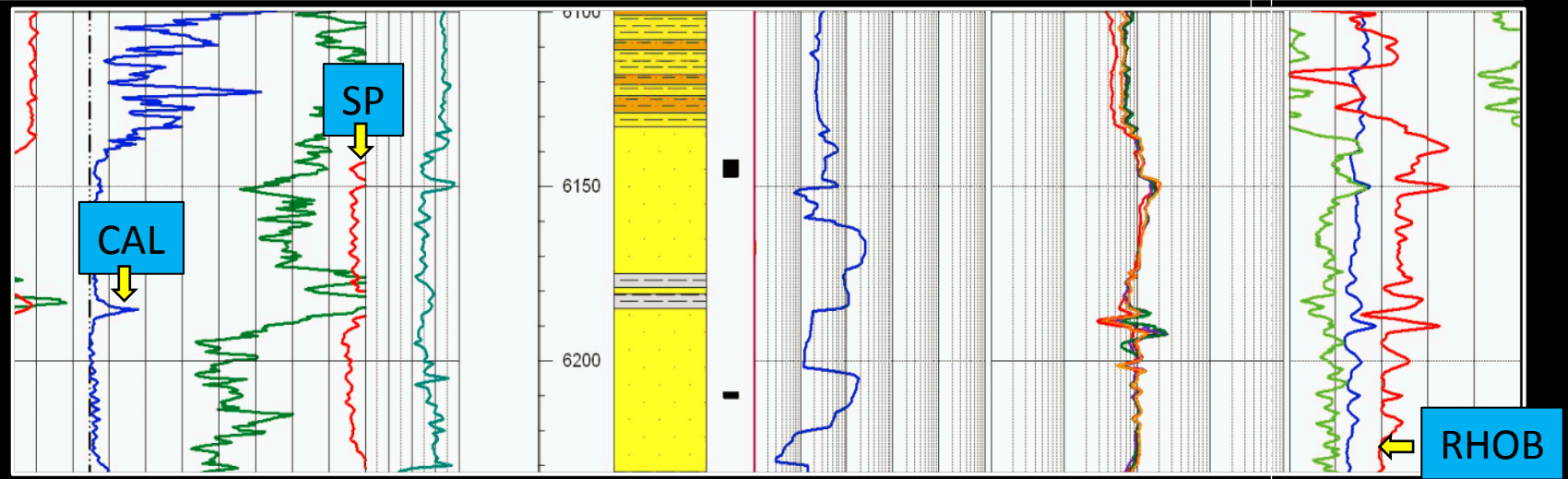
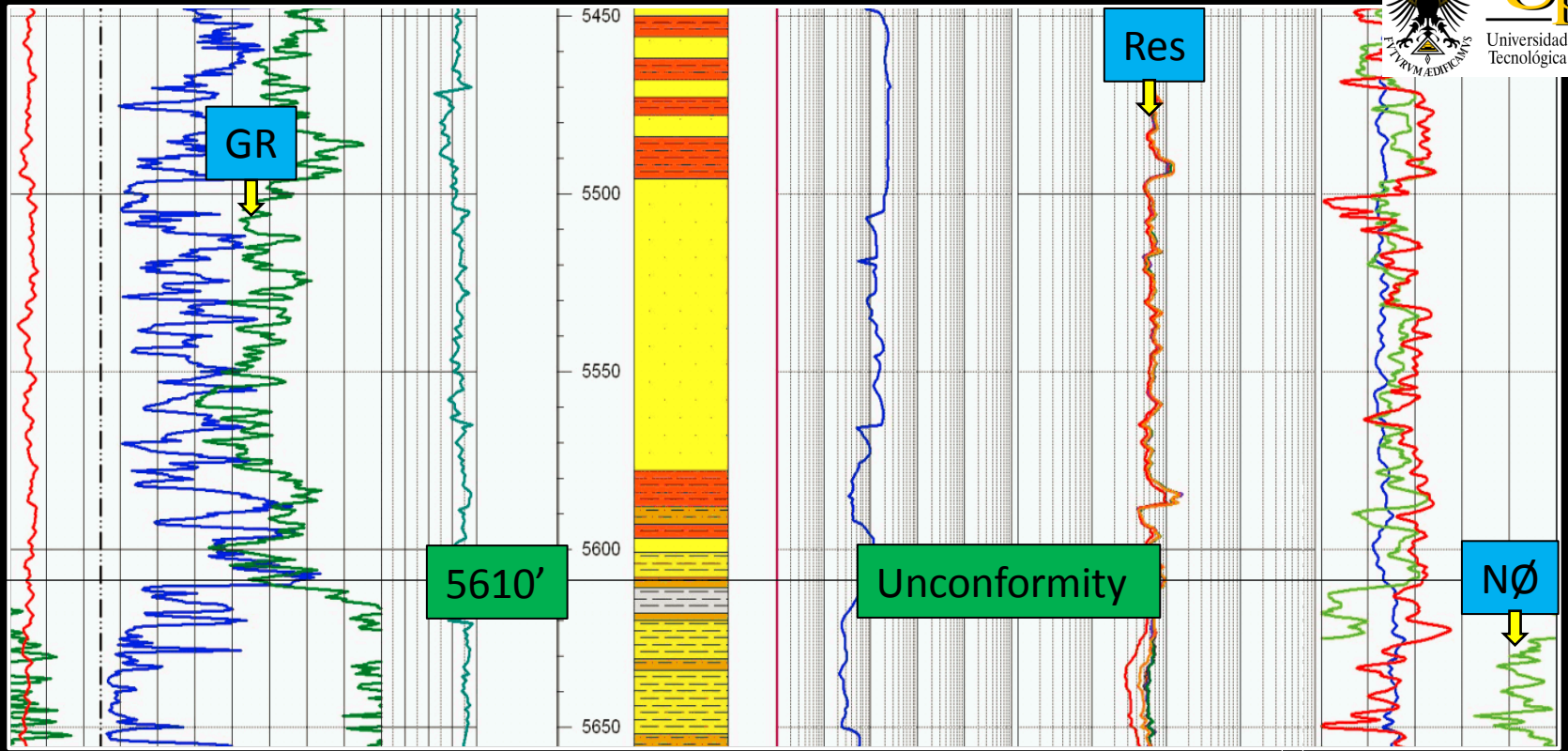
Seismic

Seismic line L-1983-18_MIG_IN

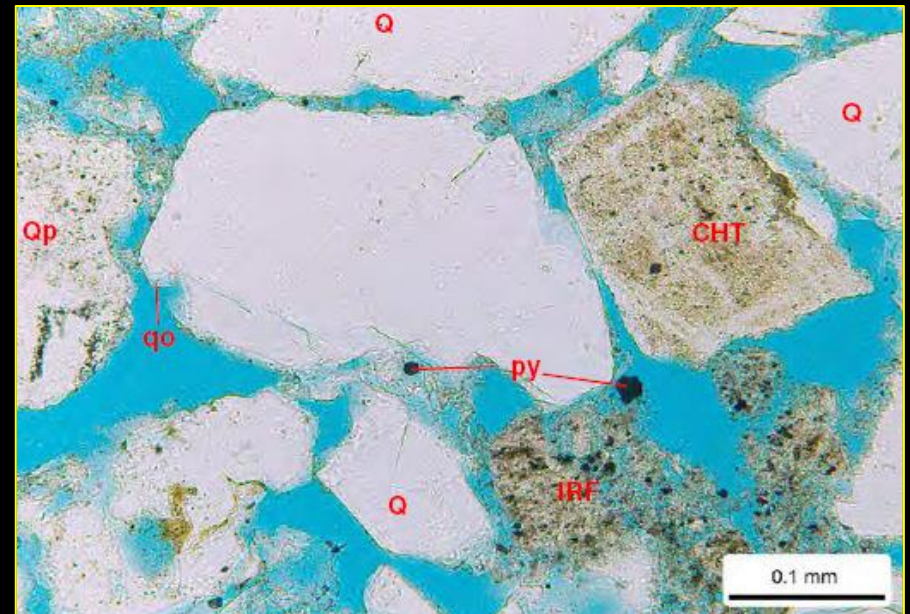
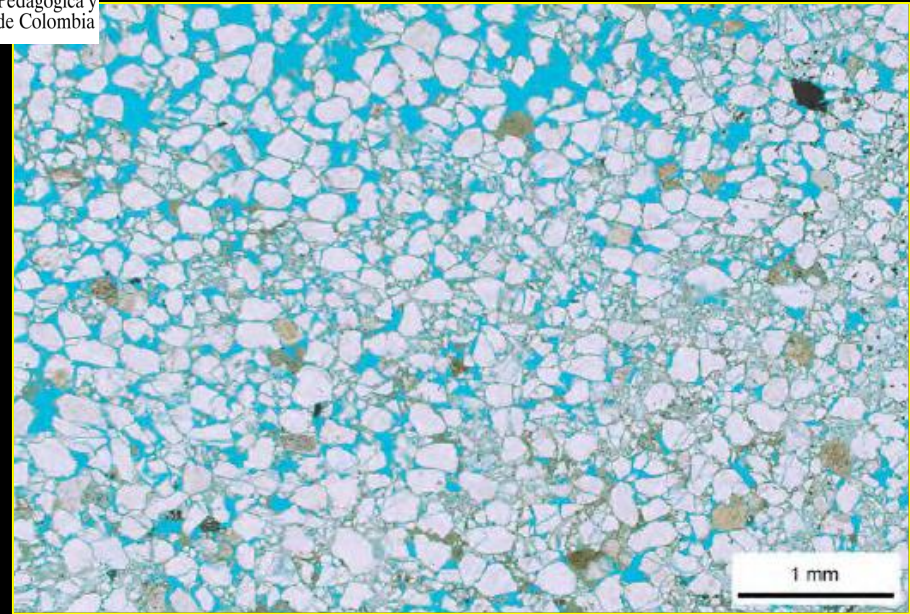
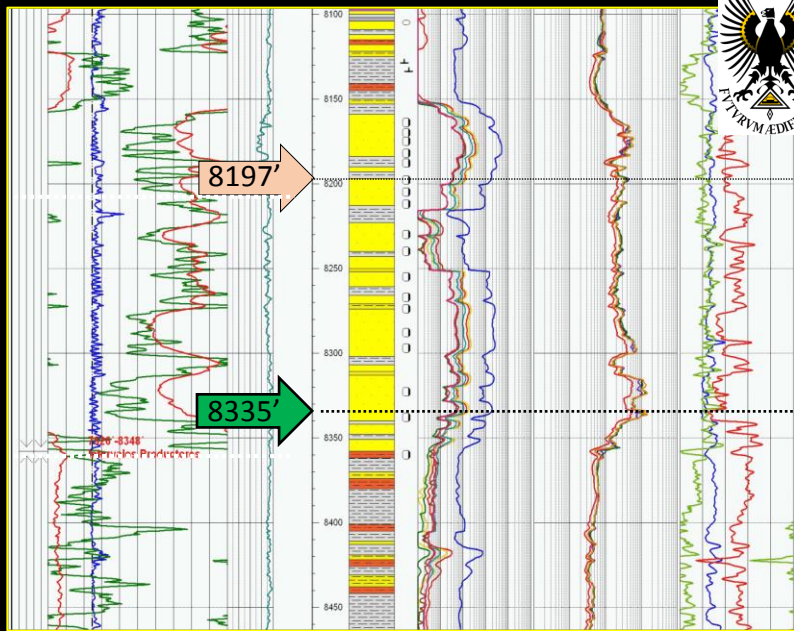


Wire Line Logs

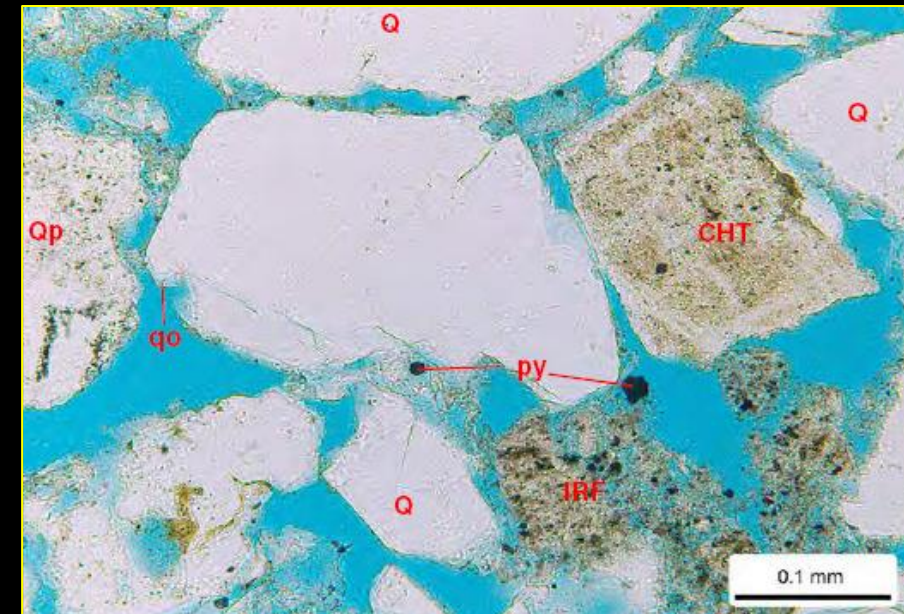
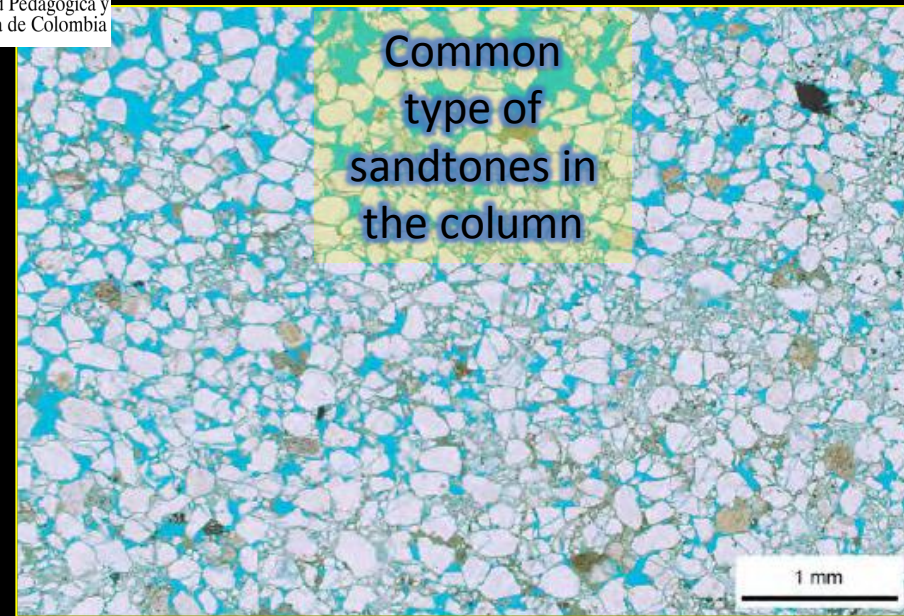
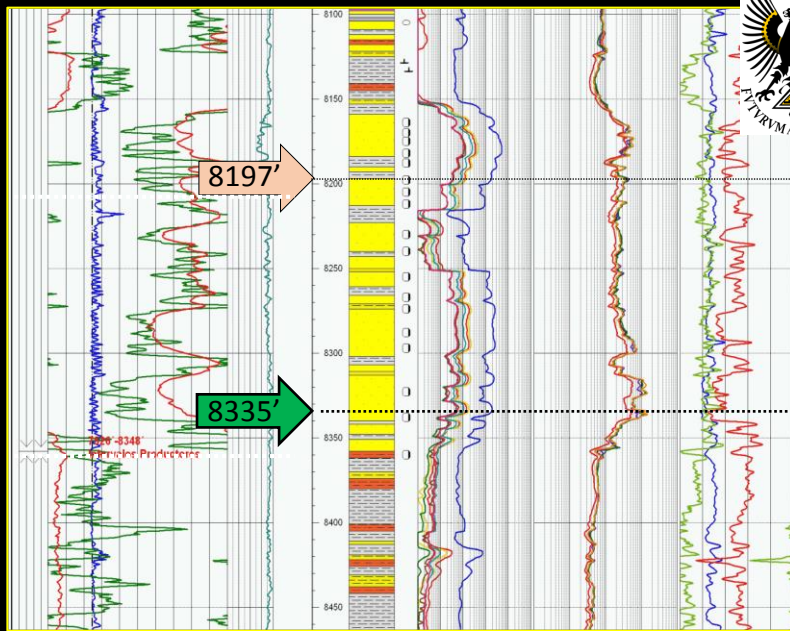
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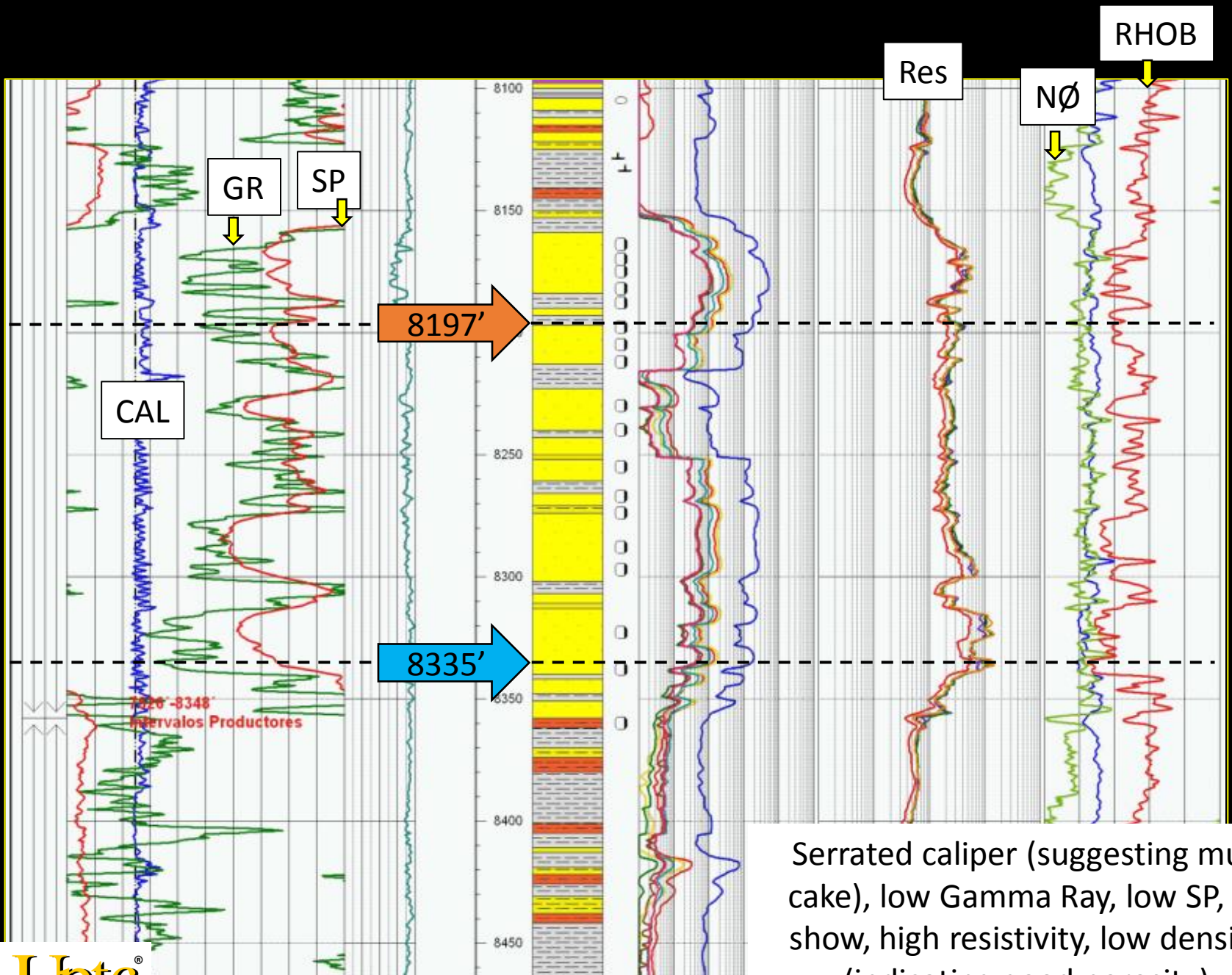
Petrophysical Properties



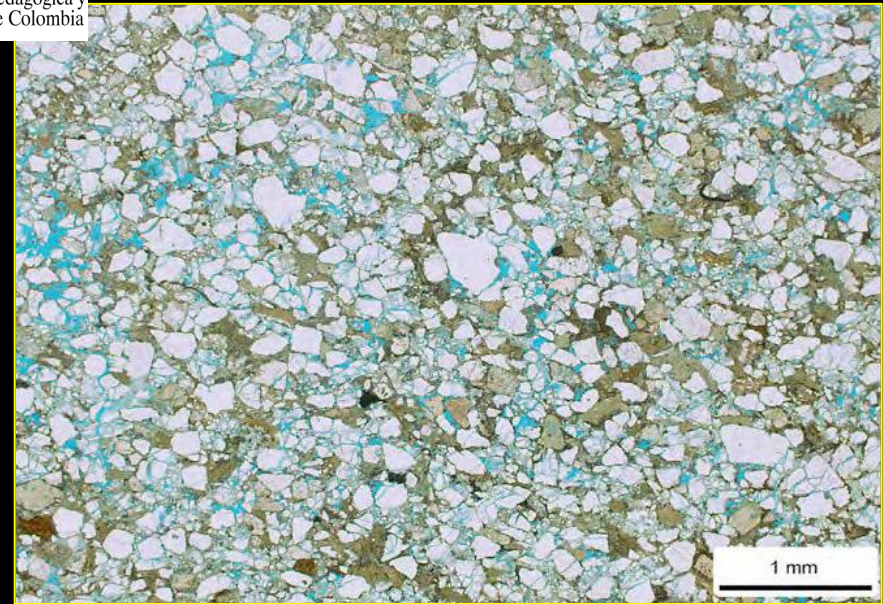
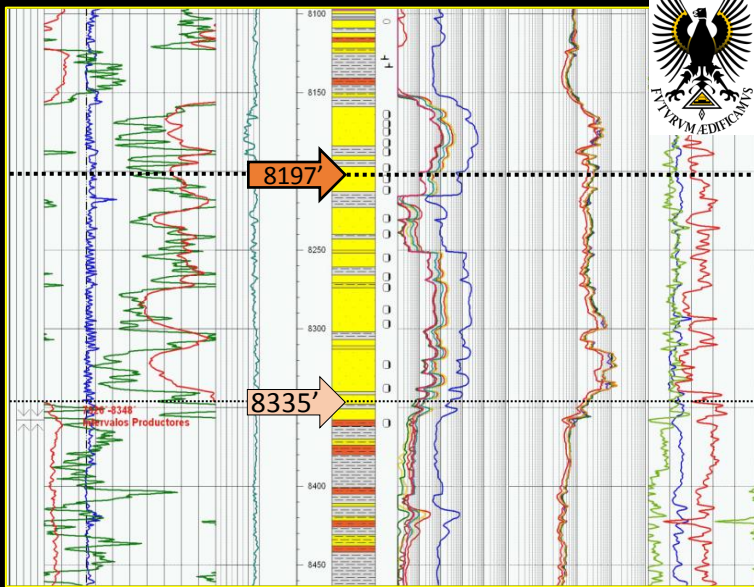
Fine-grained (0,17 mm), highly quartzose SANDSTONE. The rock is dominantly made up of monocrystalline quartz grains (57%) but there are also important amounts of lithic fragments and very low proportions of feldspar (1%). Deformation by compaction seems volumetrically unimportant. Porosity looks to be very good (optically estimated to be around 25%). Permeability should be significant due to the fact that pores seem abundant, intergranular and display no cementing minerals. Permeability seem direct function of porosity.



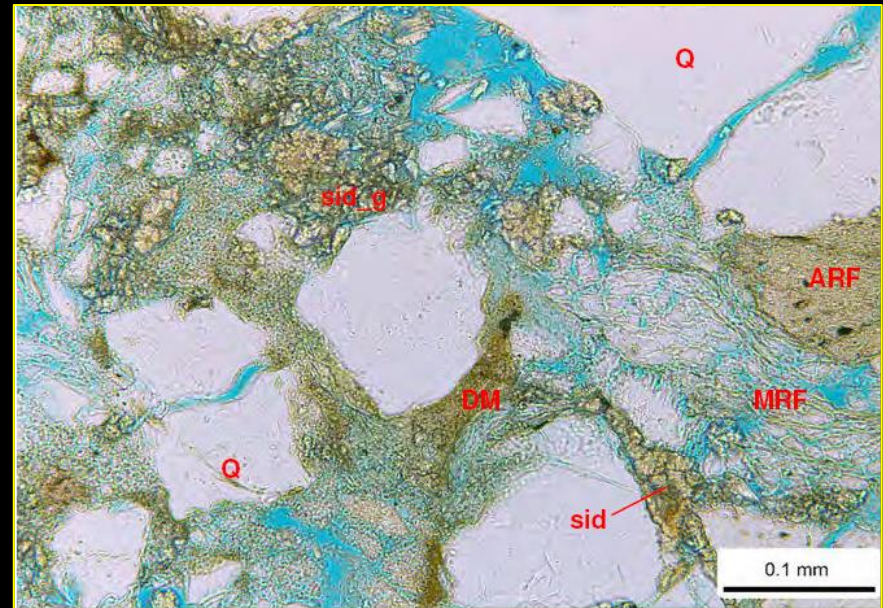
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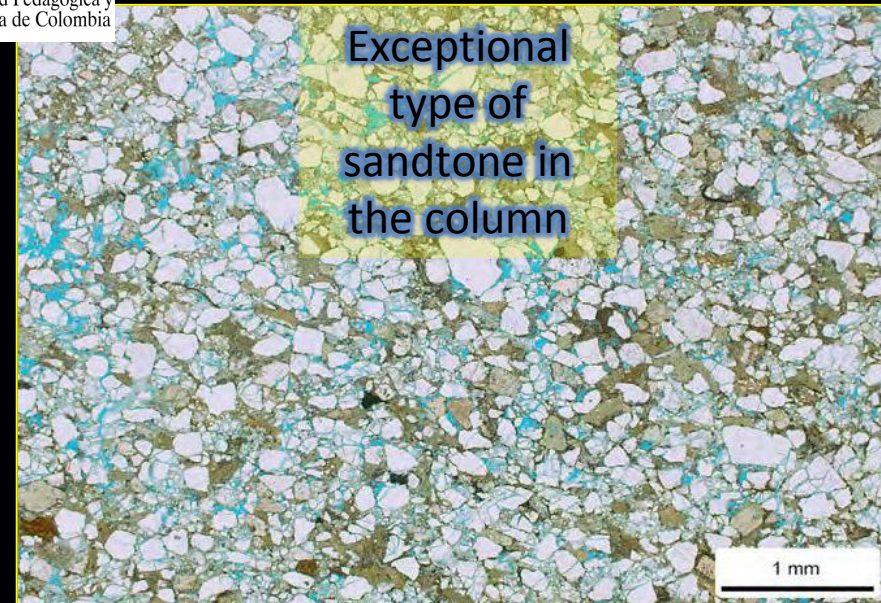
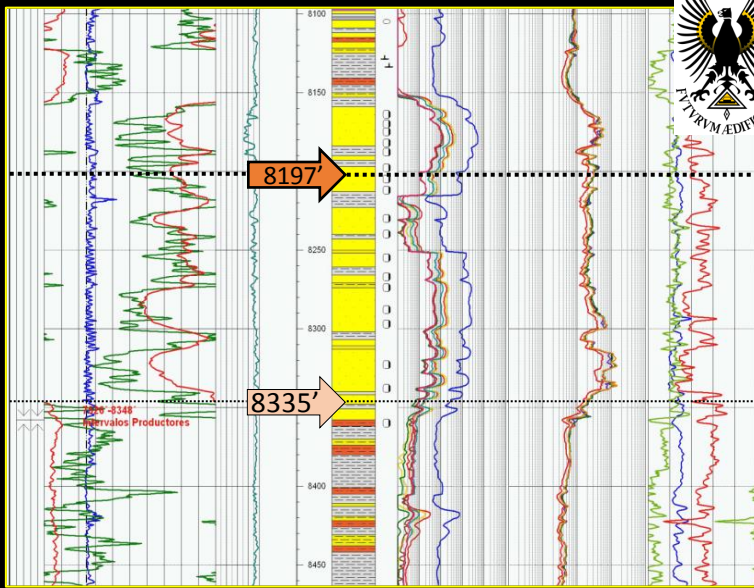


Serrated caliper (suggesting mud cake), low Gamma Ray, low SP, oil show, high resistivity, low density (indicating good porosity)

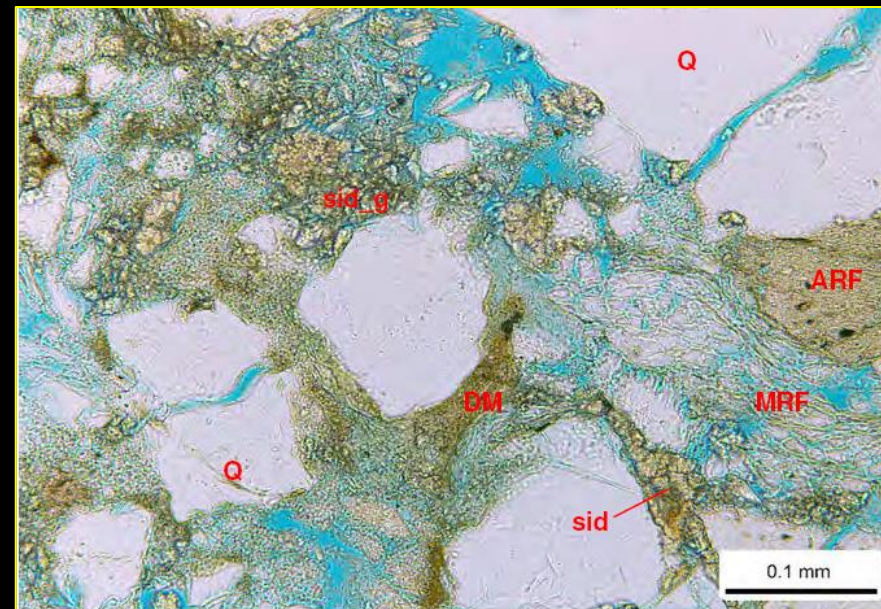


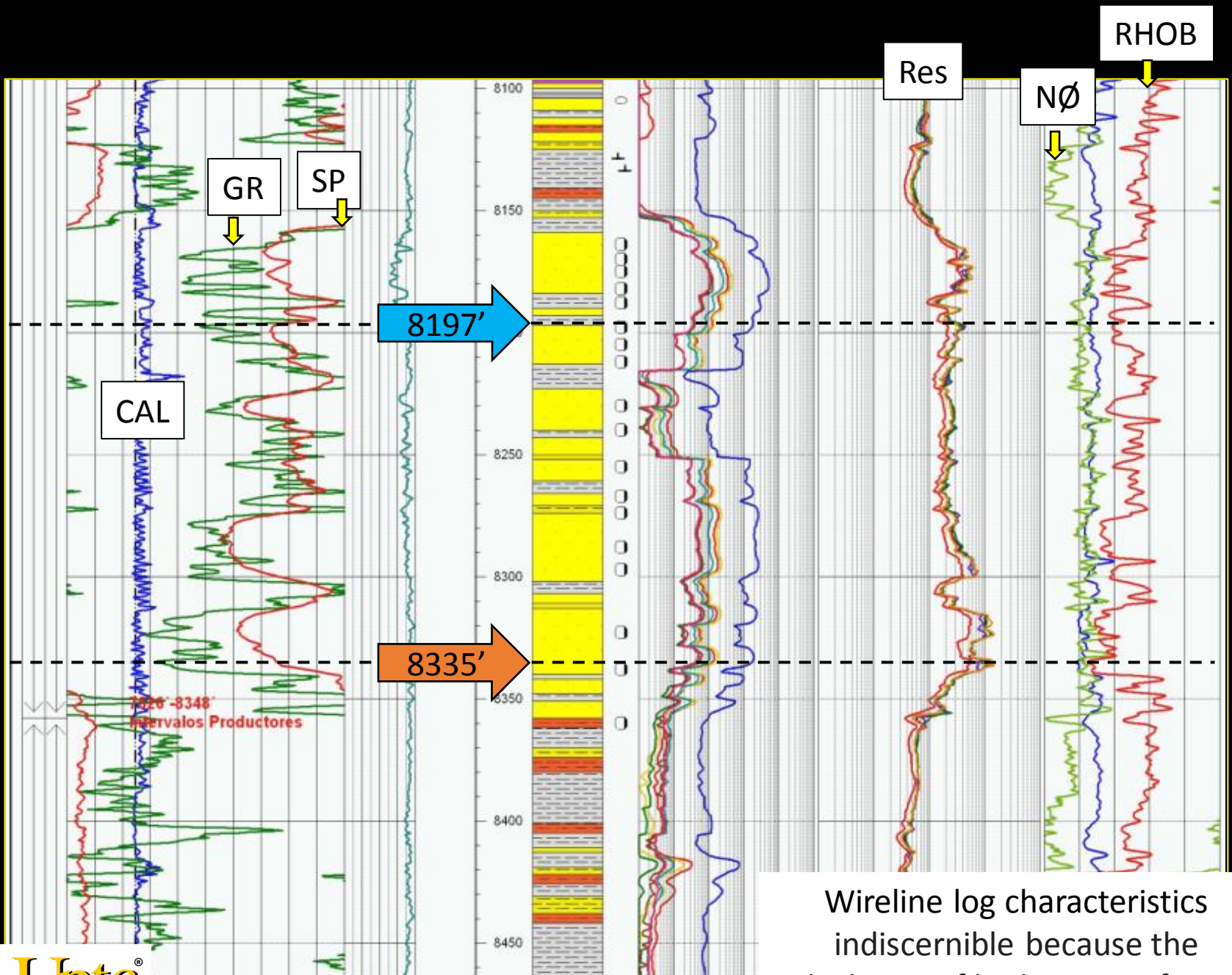
Very fine-grained (0.15 mm), highly quartzose SANDSTONE. The rock seems fundamentally made up of monocrystalline quartz grains (57%) but there are also important (17%) proportions of lithoclasts. SEM observations suggest that the rock displays very scarce amounts of potassic feldspar and plagioclase. Stress Deformation because of compaction looks to be insignificant but distension is outstandingly important. Optical porosity is bad (optically estimated to be about 2-3%). Permeability should be poor due to the fact that scanty pores are discontinuous and tortuous. Petrophysical properties are deficient because the sediment was bioturbated so that the original intergranular space was occupied by organically displaced clay minerals at the same depositional moment.





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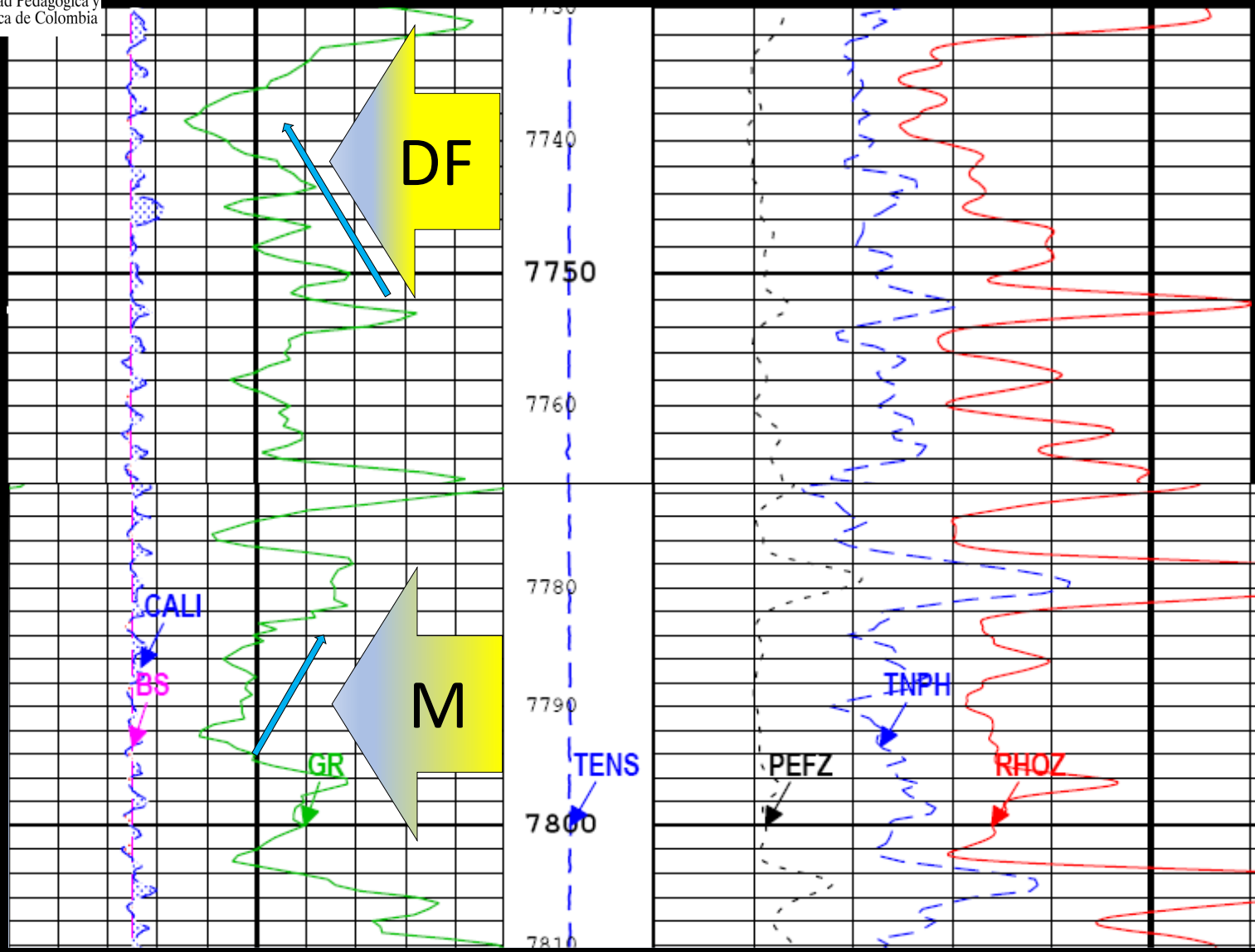




Wireline log characteristics
indiscernible because the
thickness of bed is insignificant

Sedimentary Setting

Acordionero-1

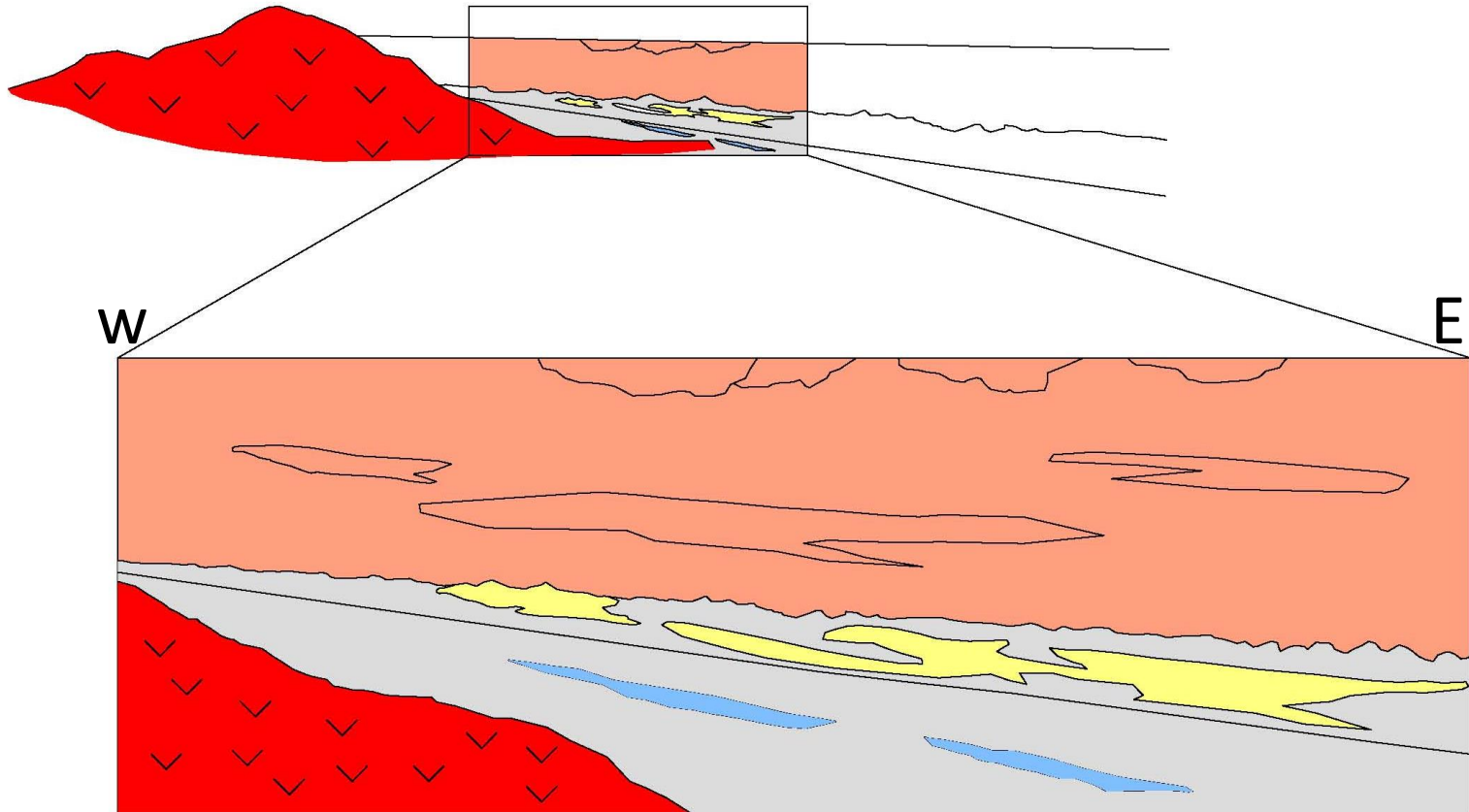







FD: deltaic form: upfining cycle

M: Meandering channel: upgrowing Cycle

Trapping & Migration

WESTERN BORDER VMM

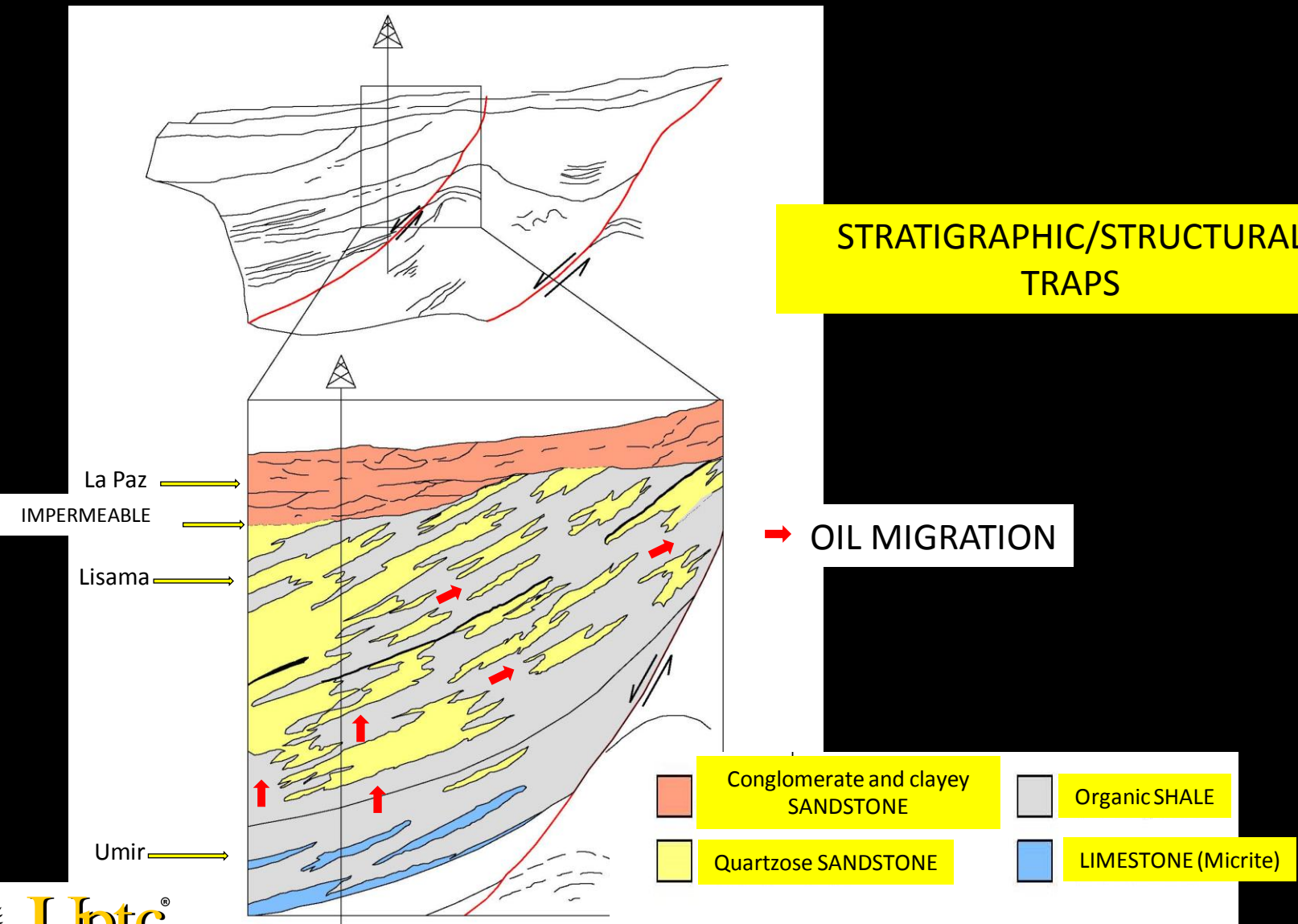


- | | | |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|  Conglomerate and clayey SANDSTONE |  Organic SHALE |  CRYSTALLINE Rock |
|  Quartzose SANDSTONE |  LIMESTONE (Micrite) | |

ESSENTIALLY STRATIGRAPHIC TRAPS

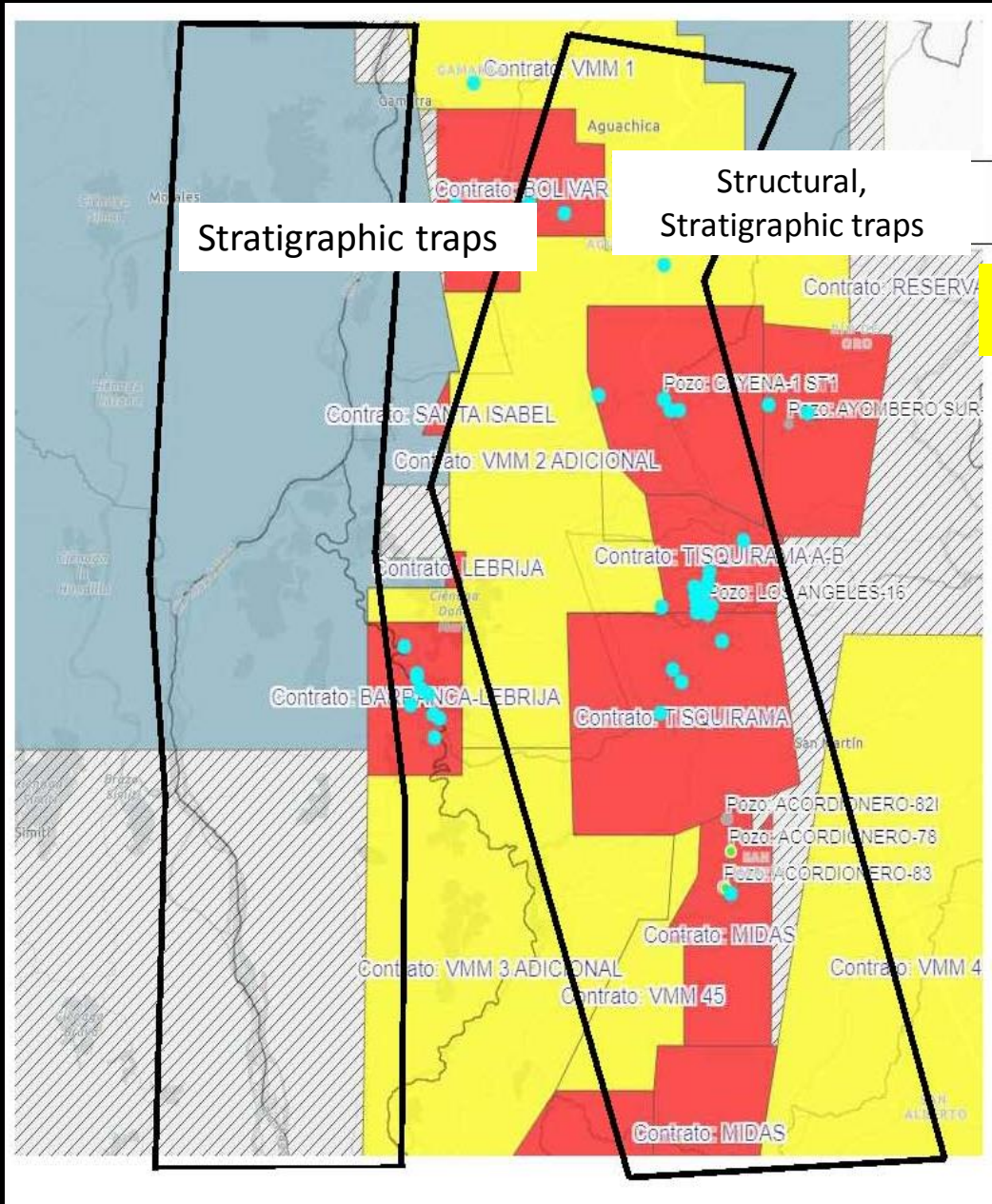
Eastern-Central part VMM

Acordionero-1



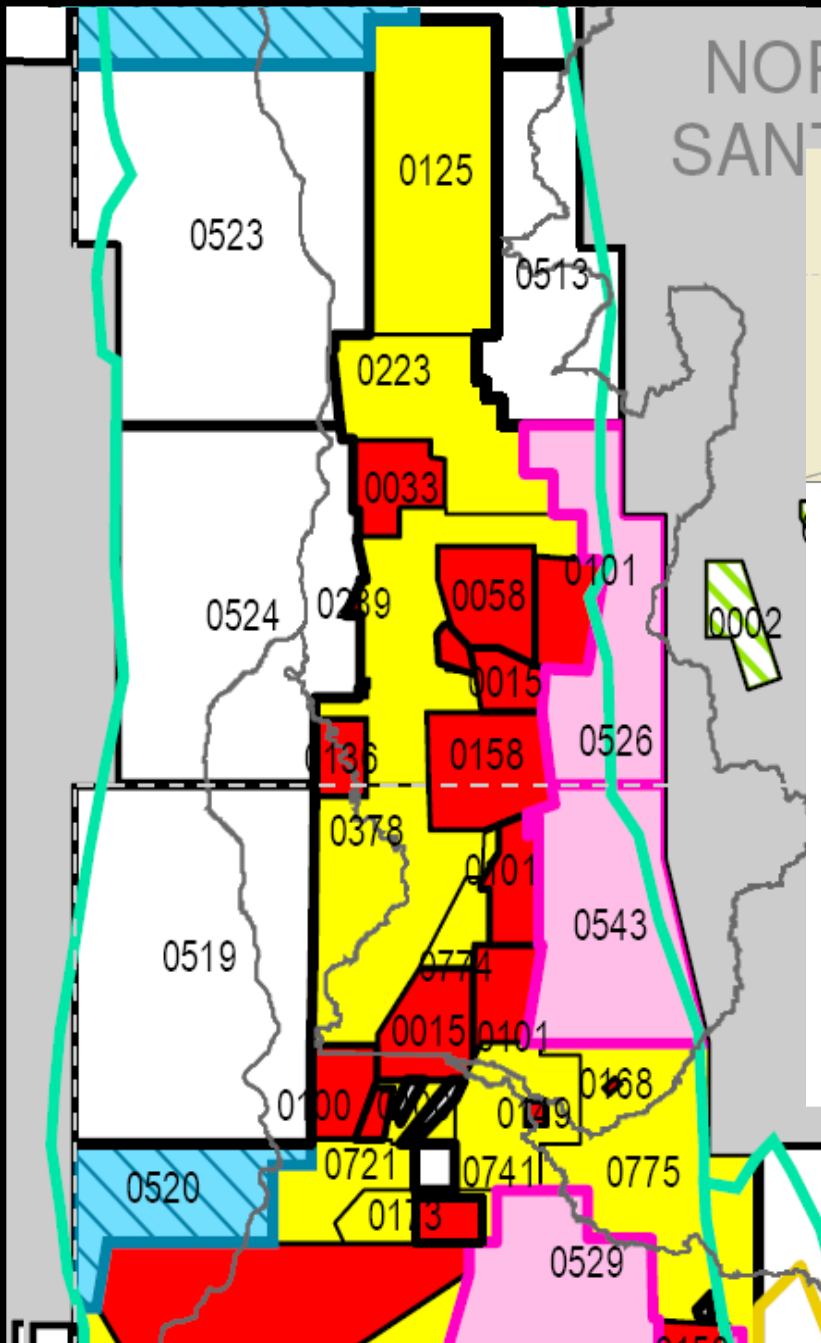
Prospectivity

PROSPECTIVITY



contracts

- AREA DISPONIBLE
- AREA EN EXPLORACION
- AREA EN PRODUCCION
- AREA RESERVADA
- AREA RESERVADA AMBIENTAL
- BASAMENTO CRISTALINO
- NEGOCIACION
- OPEN ROUND 2010
- PROCESO PERMANENTE DE ASIGNACION DE AREAS 2019_C1
- PROCESO PERMANENTE DE ASIGNACION DE AREAS 2019_C2
- PROCESO PERMANENTE DE ASIGNACION DE AREAS 2019_PC1
- TEA



NOR
SANT

CONVENCIONES

- Río
- Perimetro Urbano
- Límite Departamental
- Límite de Cuencas Sedimentarias

BLOQUES VMM

- AREA EN EXPLORACION.....
- AREA EN PRODUCCION.....
- EVALUACION TECNICA.....
- ÁREA DISPONIBLE.....
- AREA RESERVADA.....
- AREA RESERVADA AMBIENTAL.....
- NEGOCIACIÓN.....
- TRAMITE AMPLIACION
- RONDA COLOMBIA 2021 ANH
- RONDA COLOMBIA 2021 NOMINADO
- CONTRATO ESPECIAL PROYECTO INVESTIGACION CEPI 1.....
- BASAMENTO CRISTALINO.....
- TOTAL ÁREAS CLASIFICADAS.....
- EXPLORACION TERMINADO
- PRODUCCION TERMINADO