

Department of Earth Sciences and Petroleum
College of Science
Salahaddin University – Erbil



Module: Well Logging (Lab.)
3rd Year Students
First Semester (2022 – 2023)

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Lab. Five

Caliper and Gamma Ray

Outline

- What is a Caliper Tool?
- What is a Gamma Ray Log
- Exercise

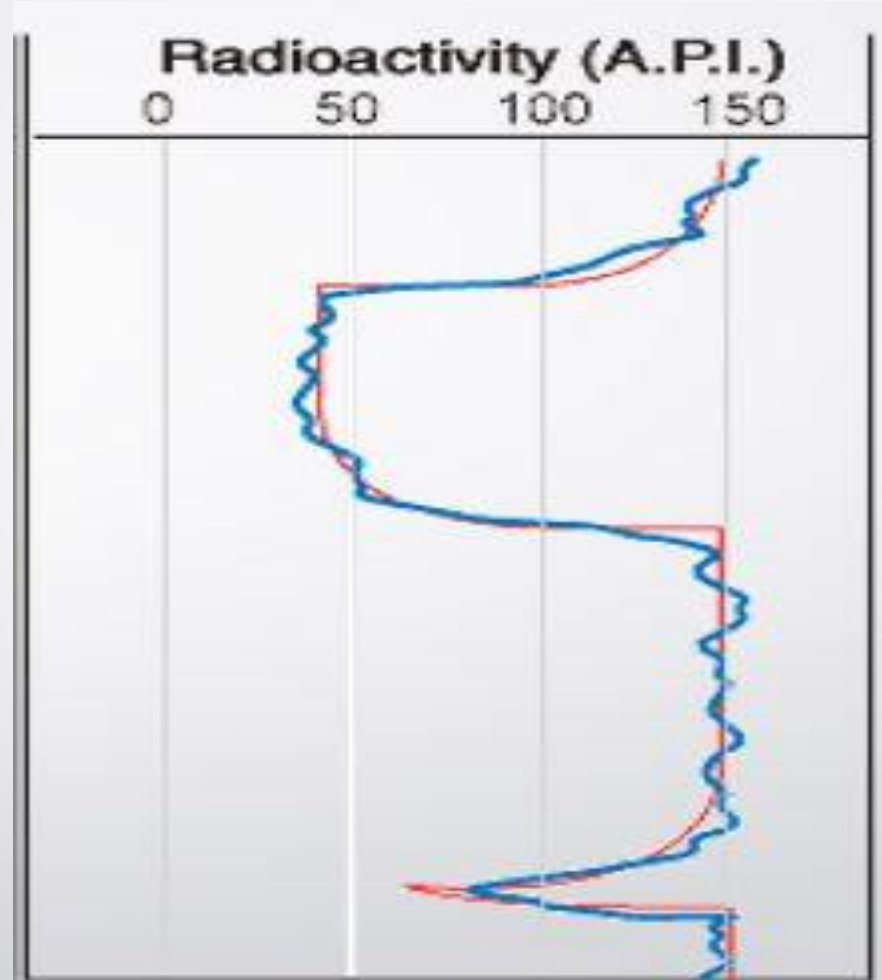
Learning Outcome

At the end of this lab you will be able to understand

- The Using of Caliper Tool
- The using of Gamma Ray Tool
- Importance of both tools

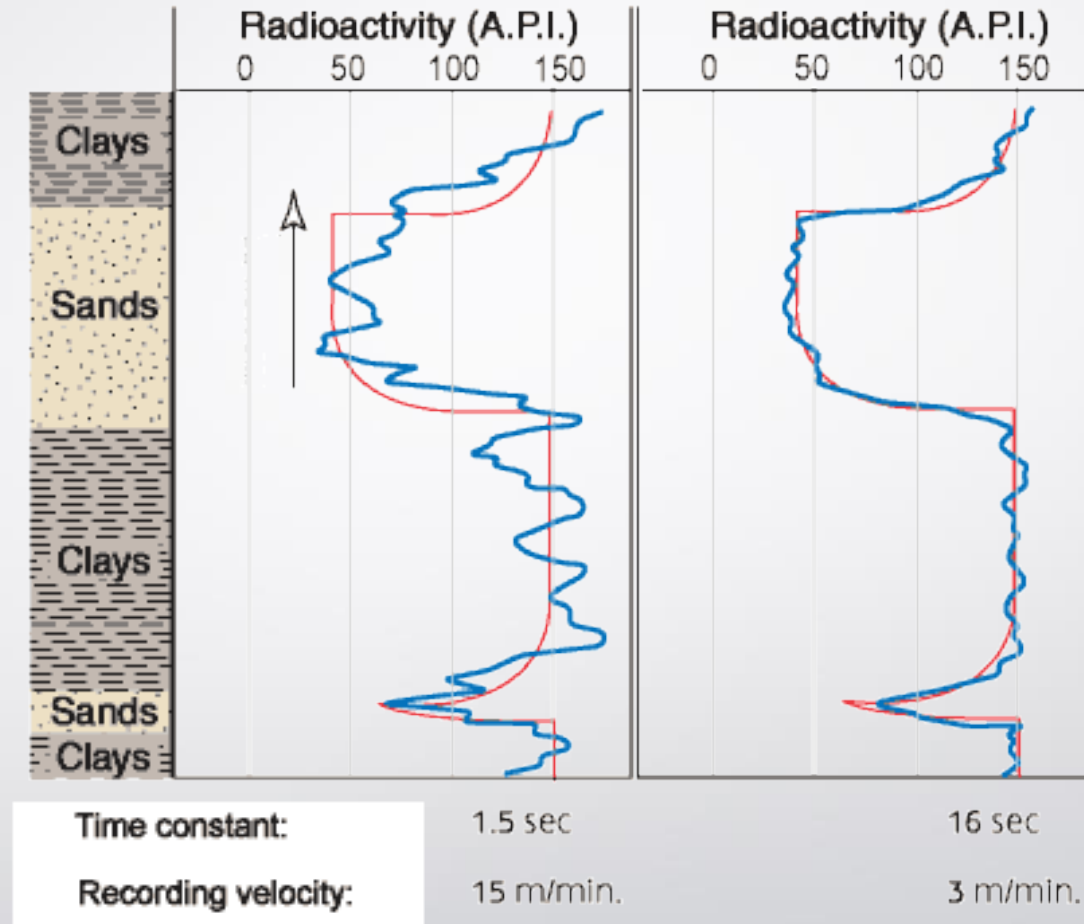
Gama Ray Log

- Unite
- Scale
- Direction
- Lithology



Gama Ray Log

- Unite
- Scale
- Direction
- Lithology



What is a GR?

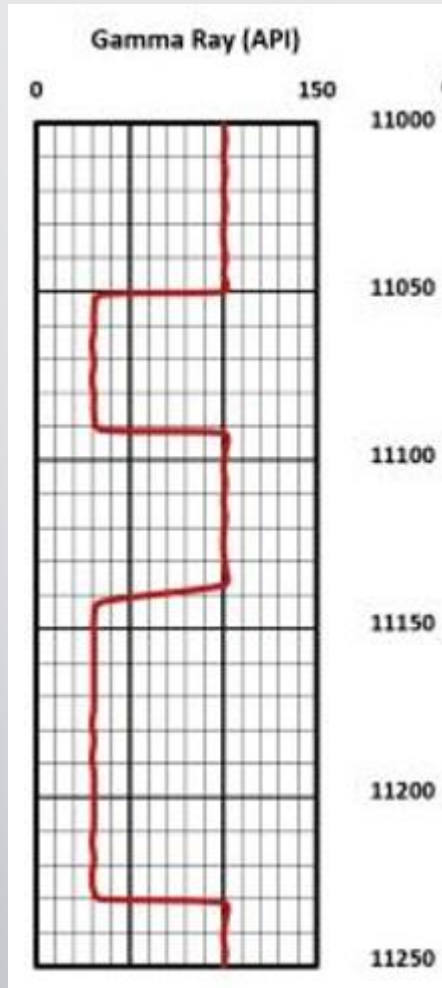


Case study

- Faiha field is located within the area of exploration (Block-9).
- This structure is located in the south-eastern part of Iraq, along Iraqi-Iranian borders, about (20 km.) towards northeastern of the Basrah city.
- It is bordered from the north Majnoon oilfield, from the south Sindibad field, from the west Nahr Bin Umr field. It covers an area of (2866 km.) which is a convex fold.
- The field lies approximately between the lines easting (215337.12- 215502.00) m. and northing (3425691.05- 3432610.00) m. as shown in Fig. (1).
- Many wells were drilled in Faiha Field (Fa-1, Fa-2 and Fa-3) and in to determine the Structural configuration and facies distribution of the reservoir rocks.

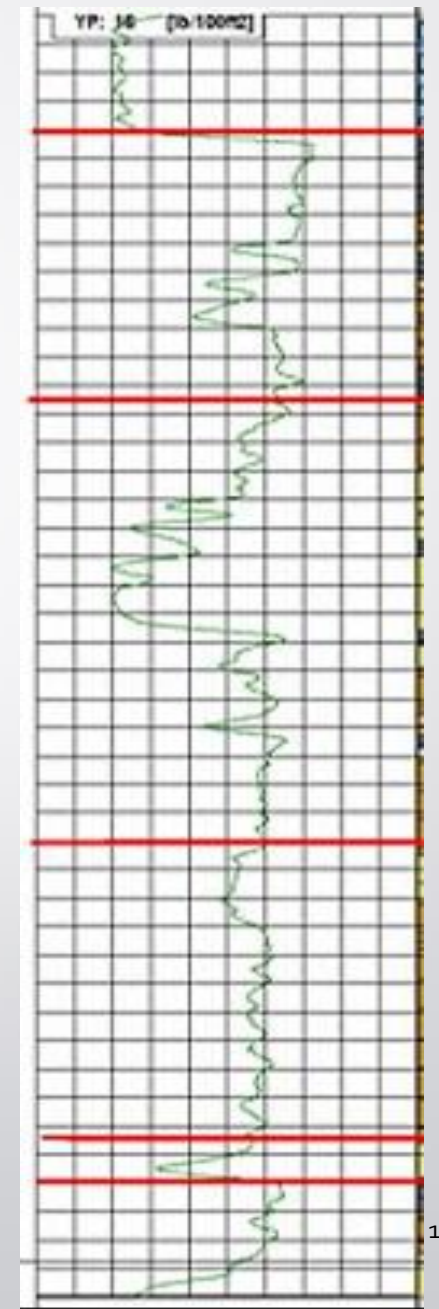
Exercises

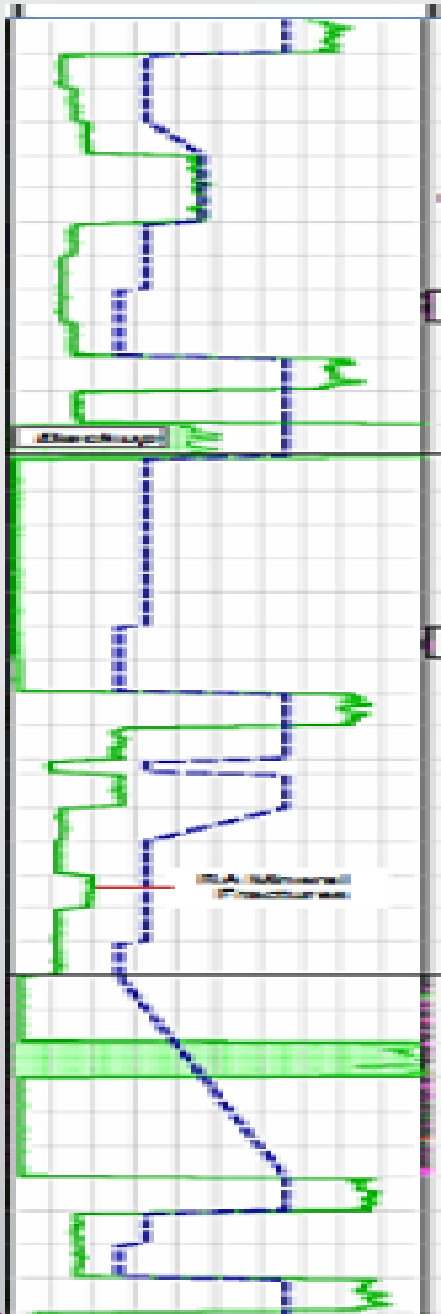
- We have Three Exercises



A) Answer the following question

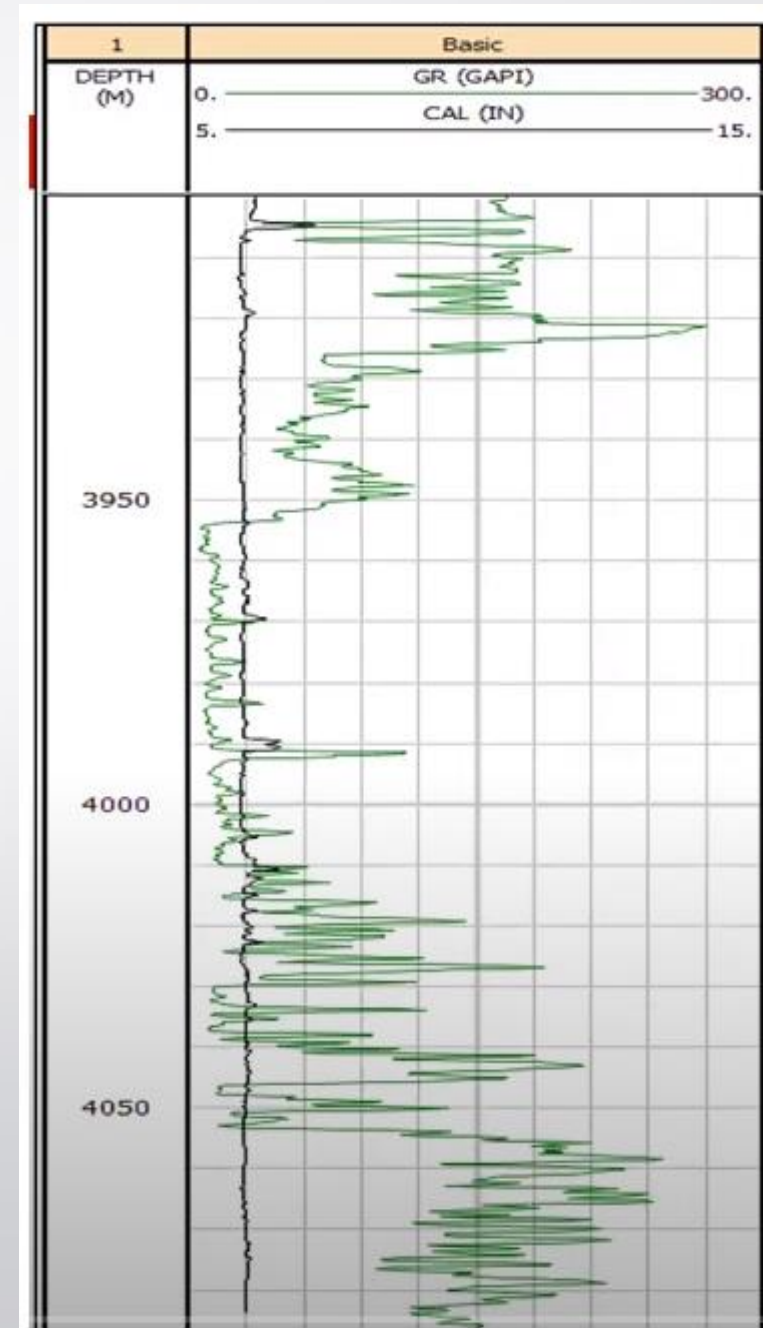
1. Separate reservoir and Non-reservoir zones
2. Do you have any problem in the log?
3. Where is the best reservoir zone?
4. Why in some zone we have high caliper and where?
5. Why in some zone we have high GR?





C) Answer the following question

1. Separate reservoir and Non-reservoir zones
2. Do you have any problem in the log?
3. Where is the best reservoir zone?
4. Why in some zone we have high and why?
5. Give two reasons for increasing the value of GR





The End

Thank you