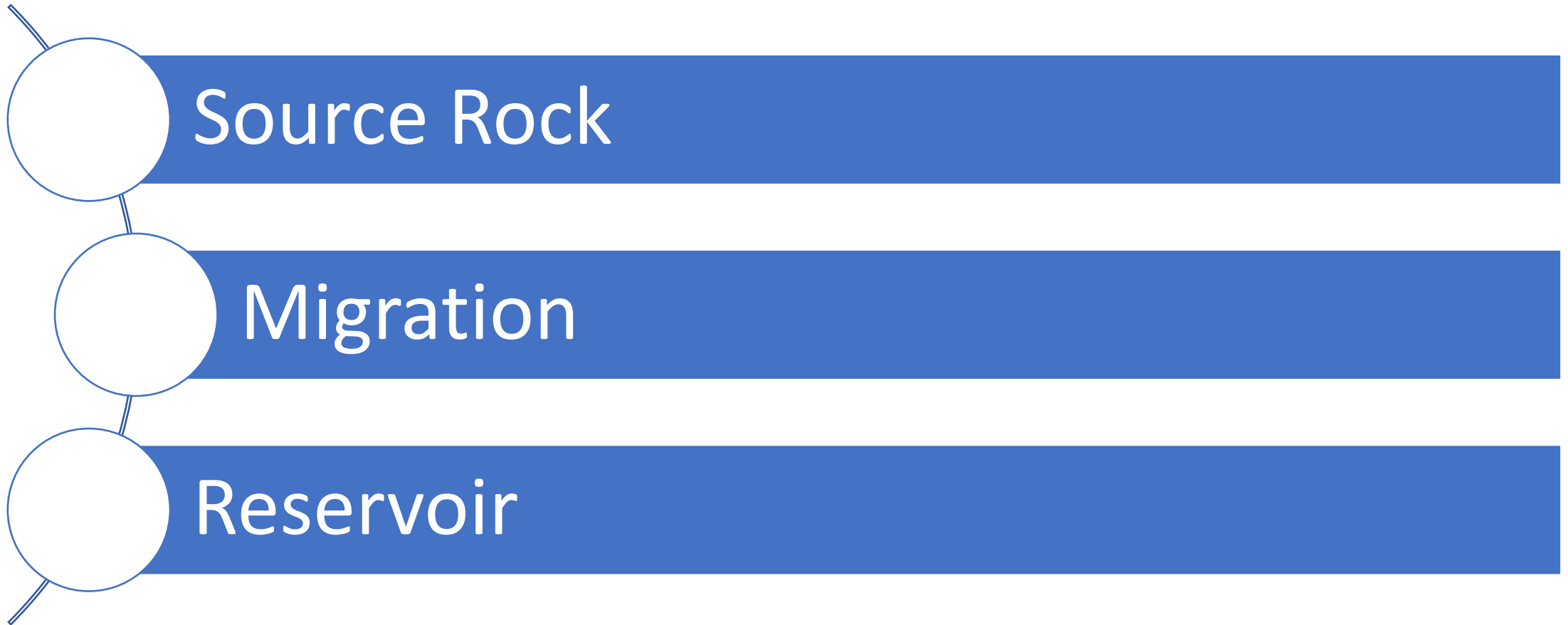


# Terms used in petroleum exploration and production

EXPLORATION TERMS

# Common terms used in petroleum exploration and production



# Terms used in

- **Sedimentary rocks** are the rocky layer where organics are converted to oil and gas **due to high temperature and pressure over millions of years.**
- From the source rock, oil and gas then **migrate to areas or traps that have a structure favorable for storing oil and gas.**
- Traps are usually anticline or domed or faulted areas having oil and gas trapped in a porous rocky area covered by **impermeable rock** (**seal or cap rocks**) layers that do not allow further migration or escape to another area. Such an area that **traps oil and gas is known as a reservoir or basin.**

# Steps for exploration

A prospect of hydrocarbon deposits is declared by the geologist when the area under study satisfies the above geological structure and conditions. The area where oil and gas are stored is known as formation.

Drilling is started only in the prospect area as declared by the geologists.

Oil reserves are classified into three categories, namely:

## Proven

- Proven reserves are worth for economic exploitation

## Probable

- Probable reserve has a certain degree of probability (about 50%) for economic exploitation.

## Possible

- Possible reserve has very little probability (about <10%) for economic exploitation with current technology

# EXPLORATION TECHNIQUES

# What are the visible evidence of a hydrocarbon source?

A diagram consisting of three white circles arranged vertically, connected by thin lines. Each circle is positioned to the left of a blue horizontal bar. The circles have small lines extending from their top-left and bottom-left edges, suggesting they are part of a larger structure or are being pointed to.

Seepage of oil and gas from the surface

The visual appearance of surface and vegetation

The presence of oil or gas in fountains or rivers

# What are the modern techniques that are used for the exploration?

- Modern exploration techniques use:
  - Geophysical,
  - Geochemical,
  - Geotechnical methods.



# Exploration of the surface:

---

- Exploration of the surface of Earth can be useful for *imaging or mapping sub-surface structures favorable for oil and gas accumulation.*